Hazardous Materials Technical Report
Honolulu High-Capacity Transit Corridor Project

May 1, 2007

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City and County of Honolulu

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Acronyms Used in this Document

AA	Alternatives Analysis
AASHTO	American Association of State Highway and Transportation Officials
ACM	Asbestos-Containing Material
ADL	Aerial Deposited Lead
AHERA	Asbestos Hazard Emergency Response Act
ASTM	American Society of Testing and Materials
CERC-NFRAP	CERCLIS-No Further Remedial Action Planned
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CONSENT	Superfund (CERCLA) Consent Decrees
CORRACTS	Corrective Action Report
CWB	Clean Water Branch
DP	Development Plan
EDR	Environmental Data Resources
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
DOD	Department of Defense
DTS	Department of Transportation Services
FINDS	Facility Index System
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FTA	Federal Transit Administration
FTTS	Federal Insecticide, Fungicide, and Rodenticide Act/Toxic Substances Control Act (FIFRA/TSCA), also known as FTTS
FUDS	Formerly Used Defense
HAZNET	Facility and Manifest Data
HCDCH	Housing and Community Development Corporation of Hawai‘i
HDOH	Department of Health, State of Hawai‘i
HDOT	Department of Transportation, State of Hawai‘i
HECO	Hawaiian Electric Company, Inc.
HEER	Office of Hazard Evaluation and Emergency Response
HMIRS	Hazardous Materials Incident Report System
HIOSH	Hawai‘i Occupational Safety and Health Division
HRS	Hazard Ranking Score
ID	Identification
INDIAN RESERV	Indian Reservations
INST CONTROL	Sites with Institutional Controls
LPA	Locally Preferred Alternative
LBP	Lead-Based Paint

LUST	Leaking Underground Storage Tank
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
NEPA	National Environmental Policy Act
NESHAP	National Emission Standard for Hazardous Air Pollutants
NPL	(Proposed/Delisted) National Priority List
NPL Liens	National Priority List Liens
NRC	Nuclear Regulatory Commission
ODI	Open Dump Inventory
OMPO	O'ahu Metropolitan Planning Organization
ORTP	O'ahu Regional Transportation Plan
OSHA	Occupational Safety & Health Act
PADS	Polychlorinated Biphenyl Activity Database System
PCB	Polychlorinated Biphenyl
PLM	Polarized Light Microscopy
RAATS	RCRA Administration Action Tracking System
RCRA	Recovery Act of 1976
RCRIS LQG	Resource Conservation and Recover Information System-Large Quantity Generators
RCRIS SQG	Resource Conservation and Recover Information System-Small Quantity Generators
RCRIS TSD	Resource Conservation and Recover Information System-Transport, Store, Dispose
RD/RA	Remedial Design/Remedial Action
RI/FS	Remedial Investigation/Feasibility Study
ROD	Records of Decision
ROW	Right-of-Way
RTP	Regional Transportation Plan
SARA	Superfund Amendments and Reauthorization Act
SHWB	Solid and Hazardous Waste Branch
SHWS	Sites List
SI	Site Inspection
SPILLS	Release Notifications
SSTS	Section 7 Tracking Systems
SWF/LF	State Solid Waste Facilities/Landfill Sites
TRIS	Toxic Release Inventory System
TSCA	Toxic Substances Control Act
TSM	Transportation System Management
UH	University of Hawai'i
UMTRA	Uranium Mill Tailings
US ENG CONTROL	Engineering Controls Sites List
US INST CONTROL	Institutional Controls Sites List
UST	Underground Storage Tank
USDOT	U.S. Department of Transportation
VAE	Visual Area Estimation
VCP	Voluntary Response Program Sites

Summary

The City and County of Honolulu Department of Transportation Services (DTS), in coordination with the U.S. Department of Transportation Federal Transit Administration (FTA), is preparing an Alternatives Analysis (AA) and an Environmental Impact Statement (EIS) to evaluate alternatives for the Honolulu High-Capacity Transit Corridor Project on the island of O'ahu, City and County of Honolulu, Hawai'i. The alternatives being considered are a No Build Alternative, a Transportation System Management (TSM) Alternative, a Managed Lane Alternative, and a Fixed Guideway Alternative.

A hazardous waste/materials assessment has been conducted to identify potential contaminant sources, both within and adjacent to the proposed project, that may adversely impact its design and construction.

A hazardous material is any substance that may be hazardous to humans, animals, or plants, and may include pesticides, herbicides, toxic metals and chemicals, volatile chemicals, explosives, and nuclear fuels or low-level radioactive wastes. O'ahu has a wide variety of industries and land uses that generate, use, store, or handle hazardous materials. Most of these sites are associated with industrial and commercial uses located throughout the island. For this assessment, potential contaminant sources were defined as facilities that treat, store, or dispose of hazardous waste; use hazardous substances; store petroleum products on-site; or otherwise present a source of contamination to the project. In addition, construction of the project may be affected by potential contaminant sources located within the project footprint or contaminants that may have migrated from an off-site source to an area involved in one or more of the project alternatives.

The hazardous waste/materials assessment was performed along the proposed alignments for the Build Alternatives and is summarized in Table S-1. In comparison to the Managed Lane Alternative, the Fixed Guideway Alternative has a greater number of potential hazardous waste/materials impacts as a result of the longer length of the alignments and footprint impacts. For the Managed Lane Alternative, the Reversible Option would have fewer impacts (7 sites) than the Two-Direction Option (8 sites). For Section I of the Fixed Guideway Alternative, the Kapolei Parkway/North-South Road and Saratoga Avenue/North-South Road alignments would have the fewest impacts (zero sites). Section II of the Fixed Guideway Alternative, the Farrington Highway/Kamehameha Highway alignment, would have one impact. For Section III of the Fixed Guideway Alternative, the Aolele Street alignment would have the fewest impacts (four sites). For Section IV of the Fixed Guideway Alternative, the North King Street alignment would have the fewest impacts (four sites). For Section V of the Fixed Guideway Alignment, the Beretania Street/South King Street alignment would have the fewest impacts (three sites). The Waikīkī Spur option is anticipated to have no impacts to hazardous waste/materials sites.

Table S-1. Summary of Hazardous Waste/Materials Impacts

Alternative	Total number of impacted right-of-way parcels with hazardous waste/materials sites
Alternative 1: No Build Alternative	
No Build Alternative	0
Alternative 2: TSM Alternative	
TSM Alternative	0
Alternative 3: Managed Lane Alternative (by section)	
3a. Two-Direction Option	
Waiawa IC to Hālawa Stream	2
Hālawa Stream to Pacific Street	6
3b. Reversible Option	
Waiawa IC to Hālawa Stream	2
Hālawa Stream to Pacific Street	5
Alternative 4: Fixed Guideway Alternative (by section)	
I. Kapolei to Fort Weaver Road	
Kamokila Boulevard/Farrington Highway	1
Kapolei Parkway/North-South Road	0
Saratoga Avenue/North-South Road	0
Geiger Road/Fort Weaver Road	2
II. Fort Weaver Road to Aloha Stadium	
Farrington Highway/Kamehameha Highway	1
III. Aloha Stadium to Middle Street	
Salt Lake Boulevard	8
Mauka of the Airport Viaduct	8
Makai of the Airport Viaduct	20
Aolele Street	4
IV. Middle Street to Iwilei	
North King Street	4
Dillingham Boulevard	9
V. Iwilei to UH Mānoa	
Beretania Street/South King Street	3
Hotel Street/Waimanu Street/Kapiʻolani Boulevard	8
Hotel Street/Kawaiahaʻo Street/Kapiʻolani Boulevard	8
King Street/Waimanu Street/ Kapiʻolani Boulevard	10
Nimitz Highway/Queen Street /Kapiʻolani Boulevard	4
Nimitz Highway/Halekauwila Street/Kapiʻolani Boulevard	9
Waikīkī Spur	0

A site reconnaissance and a review of historical land use maps and aerial photos will be conducted once a Locally Preferred Alternative (LPA) has been selected. Using these data, the list of potential contaminant sources will be narrowed based on the type of site record and its distance from proposed project activities. Mitigation measures, such as avoidance, remediation, containment, and other alternatives, will be recommended and documented in the EIS for the proposed project.

Chapter 1 Introduction

The City and County of Honolulu Department of Transportation Services (DTS), in coordination with the U.S. Department of Transportation Federal Transit Administration (FTA), has carried out an Alternatives Analysis (AA) to evaluate alternatives that would provide high-capacity transit service on O'ahu. The primary project study area is the travel corridor between Kapolei and the University of Hawai'i at Mānoa (UH Mānoa) (Figure 1-1). This corridor includes the majority of housing and employment on O'ahu. The east-west length of the corridor is approximately 23 miles. The north-south width of the corridor is at most four miles, as much of the corridor is bounded by the Ko'olau and Wai'anae Mountain Ranges to the north and the Pacific Ocean to the south.

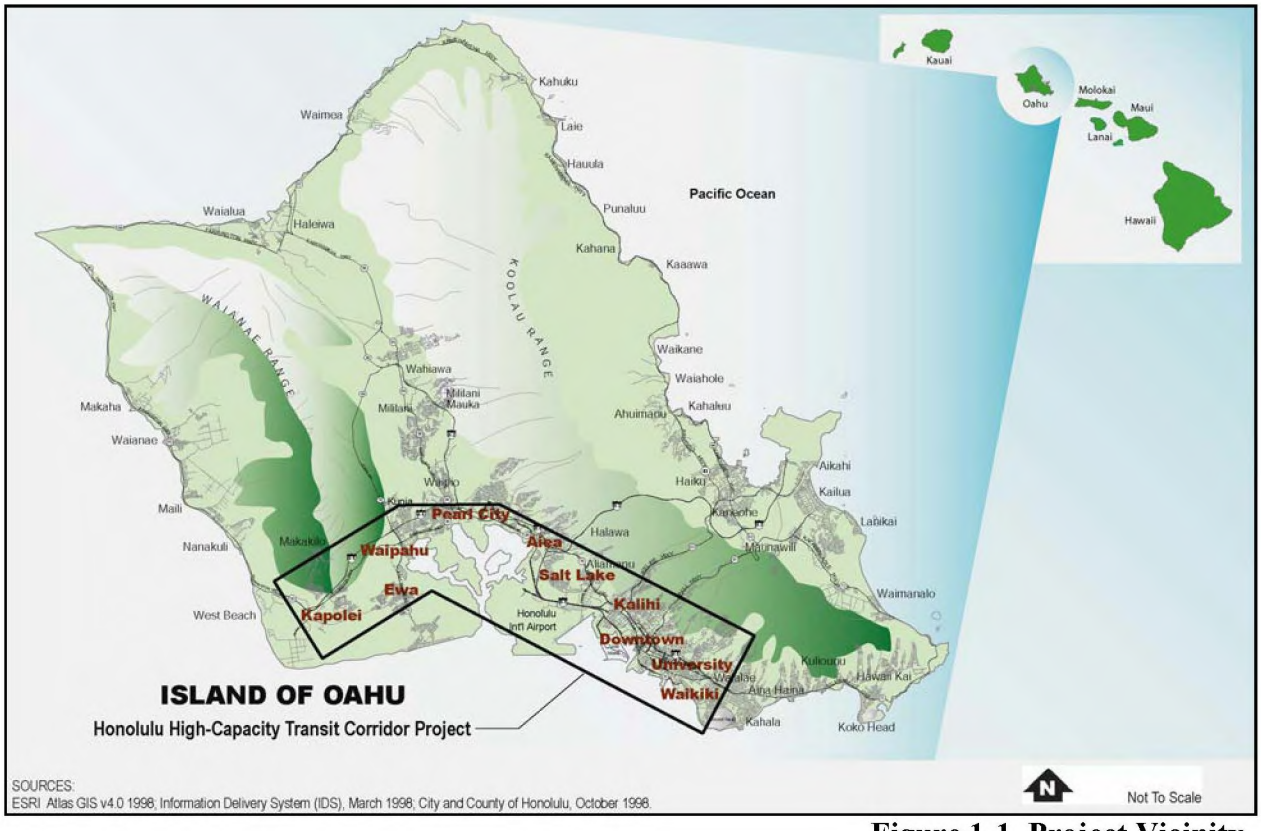


Figure 1-1. Project Vicinity

Project Description

Description of the Study Corridor

The study corridor extends from Kapolei in the west (Wai'anae or 'Ewa direction) to the University of Hawai'i at Mānoa (UH Mānoa) in the east (Koko Head direction), and is confined by the Wai'anae and Ko'olau Mountain Ranges to the north (mauka direction) and the Pacific Ocean to the south (makai direction). Between Pearl City and 'Aiea, the corridor's width is less than one mile between the Pacific Ocean and the base of the Ko'olau Mountains.

The General Plan for the City and County of Honolulu directs future population and employment growth to the ‘Ewa and Primary Urban Center (PUC) Development Plan areas and the Central O‘ahu Sustainable Communities Plan area. The largest increases in population and employment are projected in the ‘Ewa, Waipahu, Downtown, and Kaka‘ako districts, which are all located in the corridor (Figure 1-2).

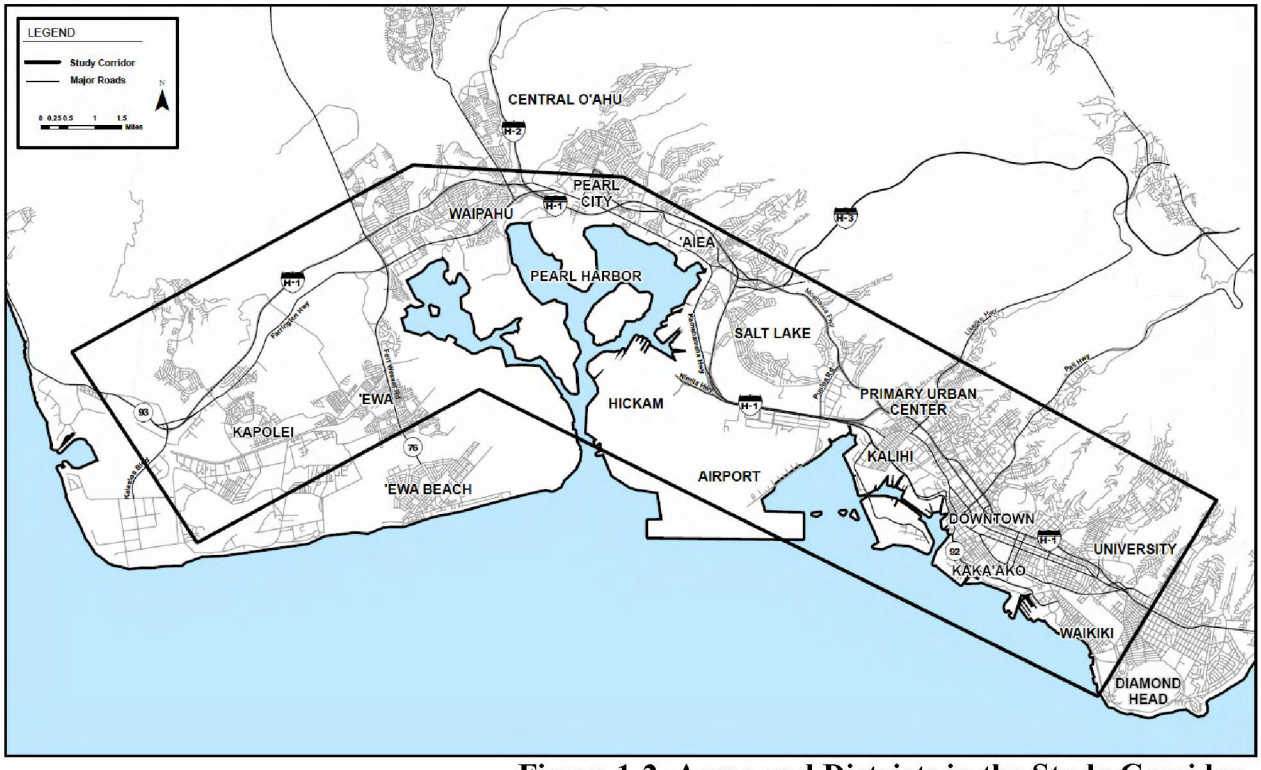


Figure 1-2. Areas and Districts in the Study Corridor

Currently, 63 percent of the 876,200 people living on O‘ahu and 81 percent of the 499,300 jobs on O‘ahu are located within the study corridor. By 2030 this distribution will increase to 69 percent of the population and 84 percent of the employment as development continues to be concentrated into the PUC and ‘Ewa Development Plan areas. Kapolei is the center of the ‘Ewa Development Plan area and has been designated as O‘ahu’s “second city.” City and State government offices have opened in Kapolei, and the University of Hawai‘i is developing a master plan for a new West O‘ahu campus there. The Kalaeloa Community Development District (formerly known as Barbers Point Naval Air Station) covers 3,700 acres adjacent to Kapolei and is planned for redevelopment. The Department of Hawaiian Home Lands is also a major landowner in the area and is planning for residential and retail development. In addition, developers have several proposals to continue the construction of residential subdivisions.

Continuing Koko Head, the corridor follows Farrington and Kamehameha Highways through a mixture of low-density commercial and residential development. This part of the corridor passes through the makai portion of the Central O‘ahu Sustainable Communities Plan area.

Farther Koko Head, the corridor enters the PUC Development Plan area, which is bounded by commercial and residential densities that begin to increase in the vicinity of Aloha Stadium. The Pearl Harbor Naval Reserve, Hickam Air Force Base, and Honolulu International Airport border the corridor on the makai side. Military and civilian housing are the dominant land uses mauka of Interstate Route H-1 (H-1 Freeway), with a concentration of high-density housing along Salt Lake Boulevard.

As the corridor continues Koko Head across Moanalua Stream, the land use becomes increasingly dense. Industrial and port land uses dominate along the harbor, shifting to primarily commercial uses along Dillingham Boulevard, a mixture of residential and commercial uses along North King Street, and primarily residential use mauka of the H-1 Freeway.

Koko Head of Nu'uanu Stream, the corridor continues through Chinatown and Downtown. The Chinatown and Downtown areas, with 62,300 jobs, have the highest employment density in the corridor. The Kaka'ako and Ala Moana neighborhoods, comprised historically of low-rise industrial and commercial uses, are being revitalized with several high-rise residential towers currently under construction. Ala Moana Center, both a major transit hub and shopping destination, is served by more than 2,000 weekday bus trips and visited by more than 56 million shoppers annually.

The corridor continues to Waikīkī and through the McCully neighborhood to UH Mānoa. Today, Waikīkī has more than 20,000 residents and provides more than 44,000 jobs. It is one of the densest tourist areas in the world, serving approximately 72,000 visitors daily (DBEDT, 2003). UH Mānoa is the other major destination at the Koko Head end of the corridor. It has an enrollment of more than 20,000 students and approximately 6,000 staff (UH, 2005). Approximately 60 percent of students do not live within walking distance of campus (UH, 2002) and must travel by vehicle or transit to attend classes.

Alternatives under Consideration

Four alternatives will be evaluated in the Alternatives Analysis (AA) report. They were developed through a screening process that considered alternatives identified through previous transit studies, a field review of the study corridor, an analysis of current housing and employment data for the corridor, a literature review of technology modes, work completed by the O'ahu Metropolitan Planning Organization (OMPO) for its Draft 2030 Regional Transportation Plan, and public and agency comments received during a formal project scoping process held in accordance with requirements of the National Environmental Policy Act (NEPA) and the Hawai'i EIS Law (Chapter 343, Hawai'i Revised Statutes). The four alternatives are described in detail in the *Honolulu High-Capacity Transit Corridor Project Alternatives Analysis Definition of Alternatives Report* (DTS, 2006a). The alternatives identified for evaluation in the AA report are as follows:

- No Build Alternative
- Transportation System Management Alternative
- Managed Lane Alternative
- Fixed Guideway Alternative

Alternative 1: No Build

The No Build Alternative includes existing transit and highway facilities and committed transportation projects anticipated to be operational by 2030. Committed transportation projects are those programmed in the O'ahu 2030 Regional Transportation Plan prepared by OMPO. The committed highway elements of the No Build Alternative also will be included in the build alternatives (discussed below).

The No Build Alternative's transit component would include an increase in fleet size to accommodate growth in population, while allowing service frequencies to remain the same as today.

Alternative 2: Transportation System Management

The Transportation System Management (TSM) Alternative would provide an enhanced bus system based on a hub-and-spoke route network and relatively low-cost capital improvements on selected roadway facilities to give priority to buses. The TSM Alternative would include the same committed highway projects as assumed for the No Build Alternative.

Alternative 3: Managed Lane

The Managed Lane Alternative would include construction of a two-lane, grade-separated facility between Waipahu and Downtown Honolulu for use by buses, paratransit vehicles, and vanpool vehicles. High-occupancy vehicles (HOV) and toll-paying, single-occupant vehicles also would be allowed to use the facility provided that sufficient capacity would be available to maintain free-flow speeds for buses and the above-noted paratransit and vanpool vehicles. Variable pricing strategies for single-occupant vehicles would ensure free-flow speeds for high-occupancy vehicles.

Intermediate bus access points would be provided in the vicinity of Aloha Stadium and Middle Street. Buses using the managed lane facility would be restructured and enhanced, providing additional service between Kapolei and other points 'Ewa of the PUC, as well as Downtown Honolulu and UH Mānoa.

Alternative 4: Fixed Guideway

The Fixed Guideway Alternative would include the construction and operation of a fixed-guideway transit system between Kapolei and UH Mānoa. The system could use any fixed-guideway transit technology approved by FTA and meeting performance requirements, and could be automated or employ drivers.

Station and supporting facility locations are currently being identified and would include a vehicle maintenance facility and park-and-ride lots. Bus service would be reconfigured to bring riders on local buses to nearby fixed-guideway transit stations.

Although this alternative would be designed to be within existing street or highway rights-of-way as much as possible, property acquisition at various locations is expected to

be necessary. Future extensions of the system to Central O'ahu, East Honolulu, or within the corridor are possible, but are not being addressed in detail at present.

A broad range of modal technologies was considered for application to the Fixed Guideway Alternative, including light rail transit, personal rapid transit, automated people mover, monorail, magnetic levitation (maglev), commuter rail, and emerging technologies still in the developmental stage. Several technologies were selected in an earlier screening process and will be considered as possible options for the fixed-guideway technology. Technologies that were not carried forward from the screening process include personal rapid transit, commuter rail, and the emerging technologies. The screening process is documented in the *Honolulu High-Capacity Transit Corridor Project Screening Report* (DTS, 2006b).

The study corridor for the Fixed Guideway Alternative will be evaluated in five sections to simplify analysis and impact evaluation in the AA process and report. In general, each alignment under consideration within each of the five sections may be combined with any alignment in the adjacent sections.

Each alignment has distinctive characteristics and environmental impacts and provides different service options. Therefore, each alignment will be evaluated individually and compared to the other alignments in each section. The sections that will be evaluated and the alignments being evaluated for each section are listed in Table 1-1. In addition to the combinations of alignments, a shorter 20-mile Alignment also was evaluated.

Table 1-1. Fixed Guideway Alternative Analysis Sections and Alignments

Section	Alignments Being Considered
I. Kapolei to Fort Weaver Road	Kamokila Boulevard/Farrington Highway
	Kapolei Parkway/North-South Road
	Saratoga Avenue/North-South Road
	Geiger Road/Fort Weaver Road
II. Fort Weaver Road to Aloha Stadium	Farrington Highway/Kamehameha Highway
III. Aloha Stadium to Middle Street	Salt Lake Boulevard
	Makai of the Airport Viaduct
	Mauka of the Airport Viaduct
	Aolele Street
IV. Middle Street to Iwilei	North King Street
	Dillingham Boulevard
V. Iwilei to UH Mānoa	Hotel Street/Kawaiaha‘o Street/Kapi‘olani Boulevard with or without Waikīkī Branch
	Hotel Street/Waimanu Street/Kapi‘olani Boulevard with or without Waikīkī Branch
	Nimitz Highway/Queen Street/Kapi‘olani Boulevard with or without Waikīkī Branch
	Nimitz Highway/Halekauwila Street/Kapi‘olani Boulevard with or without Waikīkī Branch
	Beretania Street/South King Street
	Waikīkī Branch

Project Purpose

The purpose of the Honolulu High-Capacity Transit Corridor Project is to provide improved mobility for persons traveling in the highly congested east-west transportation corridor between Kapolei and UH Mānoa, confined by the Wai‘anae and Ko‘olau Mountain Ranges to the north and the Pacific Ocean to the south. The project would provide faster, more reliable public transportation services in the corridor than those currently operating in mixed-flow traffic. The project would also provide an alternative to private automobile travel and improve linkages between Kapolei, the urban core, UH Mānoa, Waikīkī, and urban areas in-between. Implementation of the project, in conjunction with other improvements included in the 2030 O‘ahu Regional Transportation Plan (ORTP), would moderate anticipated traffic congestion in the corridor. The project also supports the goals of the O‘ahu General Plan and the ORTP by serving areas designated for urban growth.

Project Area Needs

Improved Mobility for Travelers Facing Increasingly Severe Traffic Congestion

The existing transportation infrastructure in the corridor between Kapolei and UH Mānoa is overburdened handling current levels of travel demand. Motorists experience

substantial traffic congestion and delay at most times of the day during both the weekdays and weekends. Average weekday peak-period speeds on the H-1 Freeway are currently less than 20 miles per hour (mph) in many places and will degrade even further by 2030. Transit vehicles are caught in the same congestion. Travelers on O'ahu's roadways currently experience 51,000 vehicle hours of delay, a measure of how much time is lost daily by travelers stuck in traffic, on a typical weekday. This is projected to increase to more than 71,000 daily vehicle hours of delay by 2030, assuming implementation of all of the planned improvements listed in the ORTP (except for a fixed guideway system). Without these improvements, the ORTP indicates that daily vehicle-hours of delay could increase to as much as 326,000 vehicle hours.

Current a.m. peak-period travel times for motorists from West O'ahu to Downtown average between 45 and 81 minutes. By 2030, after including all of the planned roadway improvements in the ORTP, this travel time is projected to increase to between 53 and 83 minutes. Average bus speeds in the system have been decreasing steadily as congestion has increased. Currently, express bus travel times from 'Ewa Beach to Downtown range from 45 to 76 minutes and local bus travel times from 'Ewa Beach to Downtown range from 65 to 110 minutes during the peak period. By 2030, these travel times are projected to increase by 20 percent on an average weekday. Within the urban core, most major arterial streets will experience increasing peak-period congestion, including Ala Moana Boulevard, Dillingham Boulevard, Kalākaua Avenue, Kapi'olani Boulevard, King Street, and Nimitz Highway. Expansion of the roadway system between Kapolei and UH Mānoa is constrained by physical barriers and by dense urban neighborhoods that abut many existing roadways. Given the current and increasing levels of congestion, a need exists to offer an alternative way to travel within the corridor independent of current and projected highway congestion.

Improved Transportation System Reliability

As roadways become more congested, they become more susceptible to substantial delays caused by incidents, such as traffic accidents or heavy rain. Even a single driver unexpectedly braking can have a ripple effect delaying hundreds of cars. Because of the operating conditions in the study corridor, current travel times are not reliable for either transit or automobile trips. To get to their destination on time, travelers must allow extra time in their schedules to account for the uncertainty of travel time. This is inefficient and results in lost productivity. Because the bus system primarily operates in mixed-traffic, transit users experience the same level of travel time uncertainty as automobile users. A need exists to reduce transit travel times and provide a more reliable transit system.

Accessibility to New Development in 'Ewa/Kapolei/Makakilo as a Way of Supporting Policy to Develop the Area as a Second Urban Center

The General Plan for the City and County of Honolulu projects the highest population growth rates for the island will occur in the 'Ewa Development Plan area (comprised of the 'Ewa, Kapolei, and Makakilo communities), which is expected to grow by 170 percent between 2000 and 2030. This growth represents nearly 50 percent of the total

growth projected for the entire island. The Waiʻanae, Wahiawā, North Shore, Windward, Waimānalo, and East Honolulu areas will have population growth of between zero and 16 percent because of this policy, which keeps the country "country." Kapolei, which is developing as a "second city" to Downtown Honolulu, is projected to grow by nearly 600 percent to 81,100 people, the ʻEwa neighborhood by 100 percent, and Makakilo by 125 percent between 2000 and 2030. Accessibility to the overall ʻEwa Development Plan area is currently severely impaired by the congested roadway network, which will only get worse in the future. This area is less likely to develop as planned unless it is accessible to Downtown and other parts of Oʻahu; therefore, the ʻEwa, Kapolei, and Makakilo area needs improved accessibility to support its future growth as planned.

Improved Transportation Equity for All Travelers

Many lower-income and minority workers live in the corridor outside of the urban core and commute to work in the PUC Development Plan area. Many lower-income workers also rely on transit because of its affordability. In addition, daily parking costs in Downtown Honolulu are among the highest in the United States (Colliers, 2005), further limiting this population's access to Downtown. Improvements to transit capacity and reliability will serve all transportation system users, including low-income and under-represented populations.

Project Schedule

Projects developed through the FTA New Starts process progress through many stages from system planning to operation of the project. The Honolulu High-Capacity Transit Corridor Project is currently in the Alternatives Analysis phase, which includes defining and evaluating specific alternatives to address the purpose of and need for the project as discussed in this chapter. The anticipated project development schedule for completion of the 20-mile Alignment is shown in Figure 1-3.

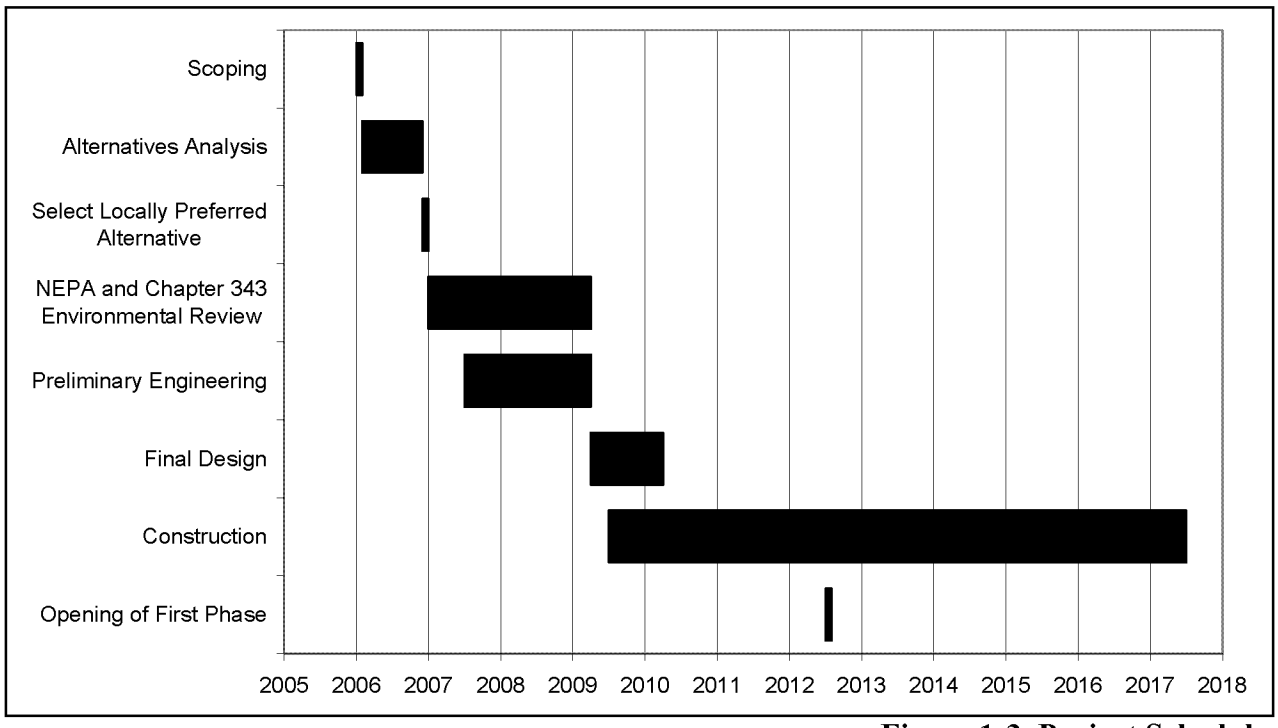


Figure 1-3. Project Schedule

Chapter 2 Studies and Coordination

Background, Studies, and Coordination

Regulatory Background

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes and materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for regulation of hazardous wastes from the "cradle to grave." In other words, wastes are regulated and tracked from their creation to their final disposal. Other federal laws include the following:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in the City and County of Honolulu is regulated primarily under the State of Hawai'i Department of Health (HDOH), Office of Hazard Evaluation and Emergency Response (HEER), and the Solid and Hazardous Waste Branch (SHWB). HEER is responsible for implementing the Hawai'i Environmental Response Law (HRS 128D) and the State Contingency Plan (HAR 11-451), as well as the Hawai'i Emergency Planning and Community Right-to-Know Act (HRS 128E). SHWB is responsible for the oversight of the Office of Solid Waste Management, the Underground Storage Tank Program, and the Hazardous Waste Program.

The health and safety of workers and the public are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Previous Studies

A review of hazardous materials surveys conducted for previous Honolulu transit proposals were evaluated for any additional potential hazardous waste sites within or surrounding the study area. Previous studies consist of, but are not limited to, similar alignments that are currently being proposed. The following relevant reports are as follows:

- *Environmental Remediation Services Associated with the Honolulu Rapid Transit Program,* June 1992. (ICF Kaiser Engineers, Inc.)
- *Primary Corridor Transportation Project: Hazardous Material Survey Report (Final),* September 25, 2002. (Masa Fujoka & Associates)
- *North-South Road Corridor Study: Hazardous Materials Technical Report,* September 1997. (State of Hawai'i Department of Transportation (HDOT) and DTS)
- *Honolulu Rapid Transit Program: Hazardous Waste Technical Memorandum*, July 1992. (ICF Kaiser Engineers, Inc.)
- *Nimitz Highway Improvements: Phase I Environmental Site Assessment*, March 1997. (DTS).

Coordination

Site reconnaissance and a review of regulatory agency records regarding environmental conditions, permits, citations, and past incidents at potential hazardous waste sites and adjacent properties will be conducted when an LPA has been selected. To obtain and review appropriate regulatory agency records, the following agencies will be contacted, if necessary: U.S. Environmental Protection Agency (EPA), HDOH Solid and Hazardous Waste Branch (SHWB), HDOH Office of Hazard Evaluation and Emergency Response (HEER), HDOH Clean Water Branch (CWB), and the City and County of Honolulu Fire Department.

Chapter 3 Methodology

In support of the AA, this hazardous waste and materials assessment has been prepared to identify potential contaminant sources that may adversely affect the project site. This *Hazardous Materials Technical Report* has been prepared in accordance with guidance from the American Association of State Highway and Transportation Officials (AASHTO) and in conformance with the Federal Transit Administration's Resource Information Section: *Hazardous Materials and Brownfields* (FTA, 2006), Federal Highway Administration's *Interim Guidance: Hazardous Waste Sites Affecting Highway Project Development* (FHWA, 1988), *Supplemental Hazardous Waste Guidance* (FHWA, 1997), and guidance provided in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments (E-1527-00).

The AA process requires a comparative evaluation of environmental impacts. The following analyses were performed as part of this assessment:

- Environmental Database Search
- Data Analysis and Documentation.

Environmental Database Search

A database search was conducted by Parsons Brinckerhoff Quade & Douglas, Inc. using an Environmental Data Resources, Inc. (EDR) database dated February 22, 2006, and consisted of a review of existing federal and state environmental databases per the ASTM standards for environmental site assessments (E-1527-00). The search distance criteria for each database accessed is identified below. For the database review, properties identified as being adjacent to the project are considered to be those properties that are located within 250 feet of the estimated construction limits for each alternative. Properties identified as being within the project boundary are considered to be those properties that are within 100 feet of the estimated construction limits for each alternative. Each identified database was searched to identify and document potential contaminant sources that may affect the project. The databases reviewed were as follows:

Federal Records

- **National Priority List (NPL)** (within 1.0 mile)**,** also known as Superfund: This Environmental Protection Agency (EPA)-supplied list is a subset of CERCLIS (see below) and identifies sites for priority cleanup under the Superfund program.
- **Proposed National Priority List Sites (Proposed NPL)** (within 1.0 mile): This EPA-supplied list is a subset of proposed CERCLIS (see below) and identifies sites for priority cleanup under the Superfund program.
- **Delisted National Priority List Sites (Delisted NPL)** (within 0.5 mile): The EPA has deleted these sites from the NPL. The National Oil and Hazardous Substances Pollution Contingency Plan established the criteria used by EPA for deletion.

- **Federal Superfund Liens (NPL Liens)** (within project boundary): This database compiles a list of filed notices of Superfund liens.
- **Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)** (within 0.5 mile): This database contains data on potentially hazardous waste sites reported to the EPA by states, municipalities, private companies, etc., pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites either proposed for or on the NPL or are in the screening and assessment phase for possible inclusion on the NPL.
- **CERCLIS- No Further Remedial Action Planned (CERC-NFRAP)** (within 0.25 mile): This database contains sites that have been removed from CERCLIS. These may be sites where, after an initial investigation, no contamination was found, contamination was removed quickly, or the degree of contamination was not serious enough for the site to be placed on the NPL.
- **Corrective Action Report (CORRACTS)** (within 1.0 mile): This database identifies hazardous waste handlers with RCRA corrective action activity.
- **Resource Conservation and Recovery Information System (RCRIS TSD)** (within 0.5 mile): RCRIS TSD (transport, store, dispose) includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).
- **Resource Conservation and Recovery Information System (RCRIS) – large-quantity generators (LQGs)** (adjacent to project boundary): This system includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA.
- **Resource Conservation and Recovery Information System (RCRIS) – small-quantity generators (SQGs)** (within project boundary): This system includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA.
- **Emergency Response Notification System (ERNS)** (adjacent to project boundary): This system records and stores information on reported releases of oil and hazardous substances.
- **Hazardous Materials Incident Report System (HMIRS)** (within project boundary): This database contains information on hazardous material spill incidents reported to the U.S. Department of Transportation.
- **Engineering Controls Sites List (US ENG CONTROLS)** (adjacent to project boundary): This database contains a list of sites with engineering controls, such as various forms of caps, building foundations, liners, and treatment methods to create a pathway elimination for regulated substances to enter environmental media or effect human health.
- **Institutional Controls Sites List (US INST CONTROL)** (adjacent to project boundary): This system contains a list of sites with institutional controls in place, such as administrative measures (e.g., groundwater use restrictions, construction restrictions, property use restrictions, deed restrictions, and post-remediation care requirements intended to prevent exposure to contaminants remaining on-site).

- **Department of Defense (DOD)** (within 0.5 mile): This data set consists of federally owned or administered lands by the DOD that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.
- **Formerly Used Defense (FUDS)** (within 1.0 mile): This system lists properties where the U.S. Army Corps of Engineers is actively working or will take necessary cleanup actions.
- **US Brownfields** (adjacent to project boundary): This database system lists brownfields addressed by Cooperative Agreement Recipients and brownfields addressed by Targeted Brownfields Assessments.
- **Superfund (CERCLA) Consent Decrees (CONSENT)** (within 0.5 mile): This database lists sites with Superfund (CERCLA) consent decrees.
- **Records of Decision (ROD)** (within 0.5 mile): Mandating a permanent remedy for NPL sites, these documents provide technical and health information to aid the cleanup of these sites.
- **Uranium Mill Tailings (UMTRA)** (within 0.5 mile): This system records and stores information on closed uranium ore sites that have a history of containing large piles of mill tailings remains that were produced after uranium had been extracted from the ore.
- **Open Dump Inventory (ODI)** (within 0.5 mile): This database lists sites that are identified as disposal facilities that do not comply with one or more of the Part 257 or Part 258 Subtitles D Criteria.
- **Toxic Release Inventory System (TRIS)** (within project boundary): This database identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 313.
- **Toxic Substances Control Act (TSCA)** (within project boundary): TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substances Inventory list.
- **Federal Insecticide, Fungicide, and Rodenticide Act/Toxic Substances Control Act (FIFRA/TSCA), also known as FTTS** (within project boundary): This system records and stores information from the tracking of administrative cases, pesticide enforcement actions and compliance activities related to FIFRA, TSCA and the Emergency Planning and Community Right-to-Know Act.
- **Section 7 Tracking Systems (SSTS)** (within project boundary): This database lists sites of registered pesticide-producing establishments with their yearly submittal reports to the EPA of the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.
- **Polychlorinated Biphenyl (PCB) Activity Database System (PADS)** (within project boundary): PADS identifies generators, transporters, commercial storers, and/or brokers and disposers of PCBs who are required to notify EPA of such activities

- **Material Licensing Tracking System (MLTS)** (within project boundary): The Nuclear Regulatory Commission (NRC) maintains this system. It lists sites that possess or use radioactive material and are subject to NRC licensing requirements.
- **Mines Master Index File (MINES)** (adjacent to project boundary): This database contains all mine identification numbers issued for mines active or opened since 1971. The data also include violation information.
- **Facility Index System (FINDS)** (within project boundary): These records contain both facility information and "pointers" to other sources that contain more detail.
- **RCRA Administration Action Tracking System (RAATS)** (within project boundary): This system contains records, based on enforcement actions issued under RCRA, pertaining to major violators. It includes administrative and civil actions brought by EPA.

State and Local Records

- **Sites List (SHWS)** (within 1.0 mile): This database lists facilities, sites or areas in which the Office of Hazard Evaluation and Emergency Response has an interest, has investigated, or may investigate under HRS 128D (includes CERCLIS sites).
- **State Solid Waste Facilities/Landfill Sites (SWF/LF)** (within 0.5 mile): This database contains an inventory of solid waste disposal facilities or landfills.
- **Leaking Underground Storage Tank (LUST)** (within 0.5 mile): This database contains records of LUSTs regulated by the Hawai'i Department of Health, and the status of repair or remediation. Many LUSTs identified by the database search have been sealed or removed.
- **Underground Storage Tank – Registered (UST)** (within project boundary): USTs are regulated under Subtitle I of RCRA and must be registered with the Hawai'i Department of Health.
- **Release Notifications (SPILLS)** (within project boundary): This database lists sites that have been reported to the Office of Hazard Evaluation and Emergency Response for the release of hazardous substances to the environment since 1988.
- **Sites with Institutional Controls (INST CONTROL)** (adjacent to project boundary): This database lists Voluntary Remediation Program and brownfield sites with institutional controls in place.
- **Voluntary Response Program Sites (VCP)** (within 0.5 mile): This database lists sites with Voluntary Response Program sites.
- **State Brownfields** (adjacent to project boundary): This database lists brownfield sites.
- **Hazardous Waste Information System (HAZNET)** (within project boundary): This database list data that has been extracted from the copies of hazardous waste manifest received each year by the Department of Toxic Substance Control. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator identification number, transport, store and dispose identification number, waste category, and disposal method.

Tribal Records

- **Indian Reservations (INDIAN RESERV)** (within 0.5 mile): This list identifies the existence and location of Indian-administered lands of the United States that have an area equal to or greater than 640 acres.

EDR Proprietary Records

- **Manufactured Gas Plants** (adjacent to project boundary): This database, compiled by EDR's researchers, consists of records of coal gas plants (manufactured gas plants) that were used in the United States from the 1800s to the 1950s.
- **EDR Historical Auto Stations** (within 0.5 mile): This database, compiled by EDR's researchers, consists of records of selected national collections of business directories and listings of potential gas station/filling station/service station sites.
- **EDR Historical Cleaners** (within 0.25 mile): This database, compiled by EDR's researchers, consists of national collections of business directories and listings of potential dry cleaner establishments. Potential dry cleaning establishments included, but were not limited to, dry cleaners, cleaners, laundry, Laundromat, cleaning/laundry, wash and dry, etc.

Data Analysis and Documentation

Potential contaminant sources identified during the EDR database review were screened to determine their potential impact to the project based on their distance from the project alignments. Impacts to potential contaminant sources identified during the EDR database review were further analyzed and determined for potential impact based on preliminary right-of-way parcel acquisition for the proposed project. The number of sites that have the potential to affect a particular alternative was tallied in a matrix for comparative evaluation (Table S-1).

Limitations

This report identifies reported potential hazardous material conditions that may affect construction of the proposed project. This assessment does not provide a definitive determination of the actual presence or absence of contamination, and would not meet "innocent landowner" provisions under CERCLA that establish a defense for the purchase of real property. This report is based on a limited review of site data. The presence of asbestos-containing material (ACM), lead-based paint, and radon gas were not assessed and this assessment does not guarantee, imply, or assert that all potential contaminated sources have been located because of the possible presence of unlisted contaminant occurrences. Conditions at the project location have the potential to change and may need to be reevaluated at a later date.

Chapter 4 Affected Environment

Database Review

The EDR database search identified 381 potential hazardous waste sites along the Managed Lane Alternative alignments and 960 potential hazardous waste sites along the Fixed Guideway Alternative alignments that met the search distance criteria described in Chapter 3. Table 4-1 summarizes the number of regulatory sites by type and alternative based on the results of the EDR database search and the distance criteria.

Table 4-1. Number of Regulatory Sites by Type and Alternative

Alternative	NPL	Proposed NPL	Delisted NPL	NPL Liens	CERCLIS	CERC-NFRAP	CORRACTS	RCRIS TSD	RCRIS LQG	RCRIS SQG	ERNS	HMIRS	US ENG CONTROLS	US INST CONTROL	DOD	FUDS	US BROWNFIELDS	CONSENT	ROD	UMTRA	ODI
Alternative 3: Managed Lane Alternative (by section)																					
Waiawa IC to Hālawa Stream (Total 85)	1	0	0	0	4	1	2	2	0	23	3	0	0	0	1	1	0	0	0	0	0
Hālawa Stream to Pacific Street (Total 296)	0	0	0	0	7	16	3	4	5	66	6	3	0	0	3	0	0	0	0	0	0
Alternative 4: Fixed Guideway Alternative (by section)																					
I. Kapolei to Fort Weaver Road (Total 20)	0	0	0	0	0	0	0	0	0	4	2	0	0	0	1	0	0	0	0	0	0
II. Fort Weaver Road to Aloha Stadium (Total 122)	1	0	0	0	0	2	2	2	1	38	2	1	0	0	1	1	0	0	0	0	0
III. Aloha Stadium to Middle Street (Total 206)	0	0	0	0	5	6	1	2	3	38	10	2	0	0	2	0	0	0	0	0	0
IV. Middle Street to Iwilei (Total 225)	0	0	0	0	4	6	1	1	4	60	5	1	0	0	1		0	0	0	0	0
V. Iwilei to UH Mānoa (Total 387)	0	0	0	0	2	7	1	1	6	99	7	1	0	0	0	0	0	0	0	0	0

Note: Numbers do not represent the total number of physical locations. One location may be listed under more than one regulatory program
Source: Environmental Data Resources, Inc., February 22, 2006

Table 4-1. Number of Regulatory Sites by Type and Alternative (continued)

Alternative	TRIS	TSCA	FTTS	SSTS	PADS	MLTS	MINES	FINDS	RAATS	SHWS	State Landfill	LUST	UST	SPILLS	INST CONTROL	VCP	BROWNFIELDS	HAZNET	INDIAN RESERV	Manufactured Gas Plants	EDR Historical Auto Stations	EDR Historical Cleaners
Alternative 3: Managed Lane Alternative (by section)																						
Waiawa IC to Hālawa Stream (Total 85)	1	0	3	0	1	0	0	61	0	10	1	41	55	21	3	2	0	0	0	0	0	0
Hālawa Stream to Pacific Street (Total 296)	3	0	8	2	3	1	0	245	1	102	0	197	201	71	11	7	3	0	0	1	0	0
Alternative 4: Fixed Guideway Alternative (by section)																						
I. Kapolei to Fort Weaver Road (Total 20)	1	0	0	0	0	0	0	12	0	2	0	3	8	5	0	0	0	0	0	0	0	0
II. Fort Weaver Road to Aloha Stadium (Total 122)	1	0	5	0	1	0	0	95	0	9	1	69	82	21	2	1	0	0	0	0	0	0
III. Aloha Stadium to Middle Street (Total 206)	0	0	5	1	0	0	0	164	1	28	0	123	63	27	2	80	0	0	0	0	0	0
IV. Middle Street to Iwilei (Total 225)	1	0	11	1	0	1	0	182	0	66	0	112	131	69	9	7	2	1	0	2	0	0
V. Iwilei to UH Mānoa (Total 387)	1	0	7	0	1	10	0	288	0	78	2	179	206	130	18	3	4	0	0	0	0	0

Note: Numbers do not represent the total number of physical locations. One location may be listed under more than one regulatory program
Source: Environmental Data Resources, Inc., February 22, 2006

Chapter 5 Impacts

Construction Impacts

Sites with contaminated soil or groundwater that would be encountered during construction have the potential to increase cost and delay schedules. Soil and/or groundwater must be either cleaned up or handled differently than clean material. Contaminated materials can be excavated and transported to approved landfills or treatment centers.

Groundwater Impacts

Construction of the Managed Lane or Fixed Guideway alternative would require deep excavations for the piers. Groundwater could be contaminated with petroleum products at several locations where excavations are required. In addition, the tunnels planned for the Fixed Guideway Alternative are close to or below the water table and contaminated groundwater could be encountered. Construction of the Managed Lane or Fixed Guideway alternative would likely require dewatering. Although disposal of the water can be permitted through the Clean Water Act, some water may be contaminated with petroleum or other hazardous chemicals. Treatment of the contaminated water is required prior to discharge into nearby storm sewers, streams or marine waters. Petroleum contaminants would be removed from water pumped from the excavations in accordance with standards established by HDOH. Petroleum products may require the use of oil water separators, strippers or other remediation techniques. Further measures to protect surface and groundwater are described in the *Water Resources Technical Report* prepared for this project. Additional studies would be required during the final design phase to determine the precise methods to be employed. The removal or treatment of contaminated groundwater would be a potential benefit to the environment.

Excavated Materials

The viaduct structure for both the Managed Lane and Fixed Guideway alternatives would be supported on piers or columns drilled or driven into the subsurface. Building the elevated structure would likely require excavation or grading of soils during construction. In addition, the tunnel planned for the Fixed Guideway Alternative would require substantial excavation of materials (see the *Natural Resources Technical Report* prepared for this project). Similar to groundwater, soil removed to build the piers or tunnels may be contaminated. Proper treatment or disposal or contaminated soils is required by HDOH. A variety of techniques, such as covering the material or transporting it offsite to approved landfills or treatment facilities, could be used to prevent contaminated material from reentering the environment or exposing humans or animals to harmful materials. The removal or treatment of contaminated soils would be a potential overall benefit to the environment.

Hazardous Waste / Materials Sites

Based on the analyses performed as part of this *Hazardous Materials Technical Report,* there are facilities adjacent to the proposed project that handle, use, and/or store

hazardous materials and/or waste. The results from the EDR database search (Table 4-1) was screened with preliminary right-of-way parcel acquisition determinations. Since parcel acquisition determinations are preliminary, this report does not differentiate or determine if a potential hazardous waste or material site will be fully or partially acquired. For purposes of this assessment, selected hazardous waste and materials sites are indicated as only having a potential impact to the proposed project. During final design, a final determination of which sites will be fully or partially acquired will be made and these sites will be assessed.

As a result of the analysis, 72 hazardous waste sites could impact construction and operation of the proposed project (Figures 5-1 through 5-6). Appendix A lists hazardous waste sites with the potential to impact the Build Alternatives and their corresponding alignments. The list of hazardous waste and materials sites includes the site name, site address, EDR identification number, the database where the site was referenced, and a map identification number (Map ID) that corresponds with the site locations shown on Figure 5-1 through 5-6. Table 5-1 summarizes impacts by alternative and alignment. The following sections describe the potential for hazardous waste and materials sites to impact each alternative of the proposed project.

Alternative 1: No Build

While the No Build Alternative assumes completion of projects defined in the O'ahu 2030 Regional Transportation Plan (RTP), no construction would be undertaken as part of this project. Impacts associated with development of the individual projects listed in the RTP are not detailed in this evaluation because these projects will undergo planning and environmental review as part of their individual project development process. The No Build Alternative would have no impact on hazardous waste or materials, since there would be no new construction, other than what has already been planned and approved.

Alternative 2: Transportation System Management

The Transportation System Management Alternative would provide an enhanced bus system based on a hub-and-spoke route network, conversion of the present morning peak-hour-only zipper-lane to both a morning and afternoon peak-hour zipper-lane operation, and other relatively low-cost bus priority capital improvements on selected roadway facilities, as well as include the completion of projects defined in the O'ahu RTP that are also included in the No Build Alternative. Projects included under the No Build Alternative would undergo planning and environmental review as part of their individual project development process. It is not anticipated that the TSM Alternative would create or transport hazardous materials or wastes as part of operation of the proposed project. Construction of bus-enhancement facilities could be affected by hazardous materials or waste sites if such facilities are located at or adjacent to sites that use or store hazardous wastes.

Table 5-1. Summary of Hazardous Waste/Materials Impacts

Alternative	Total number of impacted right-of-way parcels with hazardous waste/materials sites
Alternative 1: No Build Alternative	
No Build Alternative	0
Alternative 2: TSM Alternative	
TSM Alternative	0
Alternative 3: Managed Lane Alternative (by section)	
3a. Two-Direction Option	
Waiawa IC to Hālawa Stream	2
Hālawa Stream to Pacific Street	6
3b. Reversible Option	
Waiawa IC to Hālawa Stream	2
Hālawa Stream to Pacific Street	5
Alternative 4: Fixed Guideway Alternative (by section)	
I. Kapolei to Fort Weaver Road	
Kamokila Boulevard/Farrington Highway	1
Kapolei Parkway/North-South Road	0
Saratoga Avenue/North-South Road	0
Geiger Road/Fort Weaver Road	2
II. Fort Weaver Road to Aloha Stadium	
Farrington Highway/Kamehameha Highway	1
III. Aloha Stadium to Middle Street	
Salt Lake Boulevard	8
Mauka of the Airport Viaduct	8
Makai of the Airport Viaduct	20
Aolele Street	4
IV. Middle Street to Iwilei	
North King Street	4
Dillingham Boulevard	9
V. Iwilei to UH Mānoa	
Beretania Street/South King Street	3
Hotel Street/Waimanu Street/Kapiʻolani Boulevard	8
Hotel Street/Kawaiahaʻo Street/Kapiʻolani Boulevard	8
King Street/Waimanu Street/ Kapiʻolani Boulevard	10
Nimitz Highway/Queen Street /Kapiʻolani Boulevard	4
Nimitz Highway/Halekauwila Street/Kapiʻolani Boulevard	9
Waikīkī Spur	0

Alternative 3: Managed Lane

The Managed Lane Alternative would provide two additional travel lanes that would be designed to run in two variations. The first option is a two-lane reversible direction facility (two lanes traveling in the same direction); the second option is a two-direction facility (one lane in each direction). The Managed Lane Alternative would travel from where the H-1 and H-2 merge (Waiawa Interchange) in Waipahu, continue Koko Head on Kamehameha Highway, run along Nimitz Highway, and end ʻEwa of Downtown Honolulu on Pacific Street in Iwilei.

The Managed Lane Alternative is estimated to affect 8 potentially hazardous waste or materials sites for the two-direction facility option and 7 sites for the two-lane reversible option (Figure 5-1 and Appendix A, Table A-1). Two potential hazardous waste sites on Kamehameha Highway between the Waiawa Interchange and Hālawa Stream could affect both the two-direction and the two-lane reversible direction facilities (Figure 5-1, Managed Lane, Map ID: ML-A and ML-C). Potential hazardous waste sites along the Managed Lane alignment include vehicle maintenance facilities, a military naval station, and business-commercial properties.

Alternative 4: Fixed Guideway

The Fixed Guideway Alternative would link Kapolei and the University of Hawai'i at Mānoa. For simplification of analysis and impact evaluation, the Fixed Guideway Alternative was evaluated in five different sections. In general, each alignment under consideration within each of the five sections may be combined with any alignment in the adjacent sections.

Section I: Kapolei to Fort Weaver Road

The Kapolei to Fort Weaver Road section includes the Wai'anae terminus of the Fixed Guideway Alternative. The discussion of potential hazardous waste/materials sites is arranged according to the following four proposed alignments in this project section:

- Kamokila Boulevard/Farrington Highway
- Kapolei Parkway/North-South Road
- Saratoga Avenue/North-South Road
- Geiger Road/Fort Weaver Road.

Kamokila Boulevard/Farrington Highway

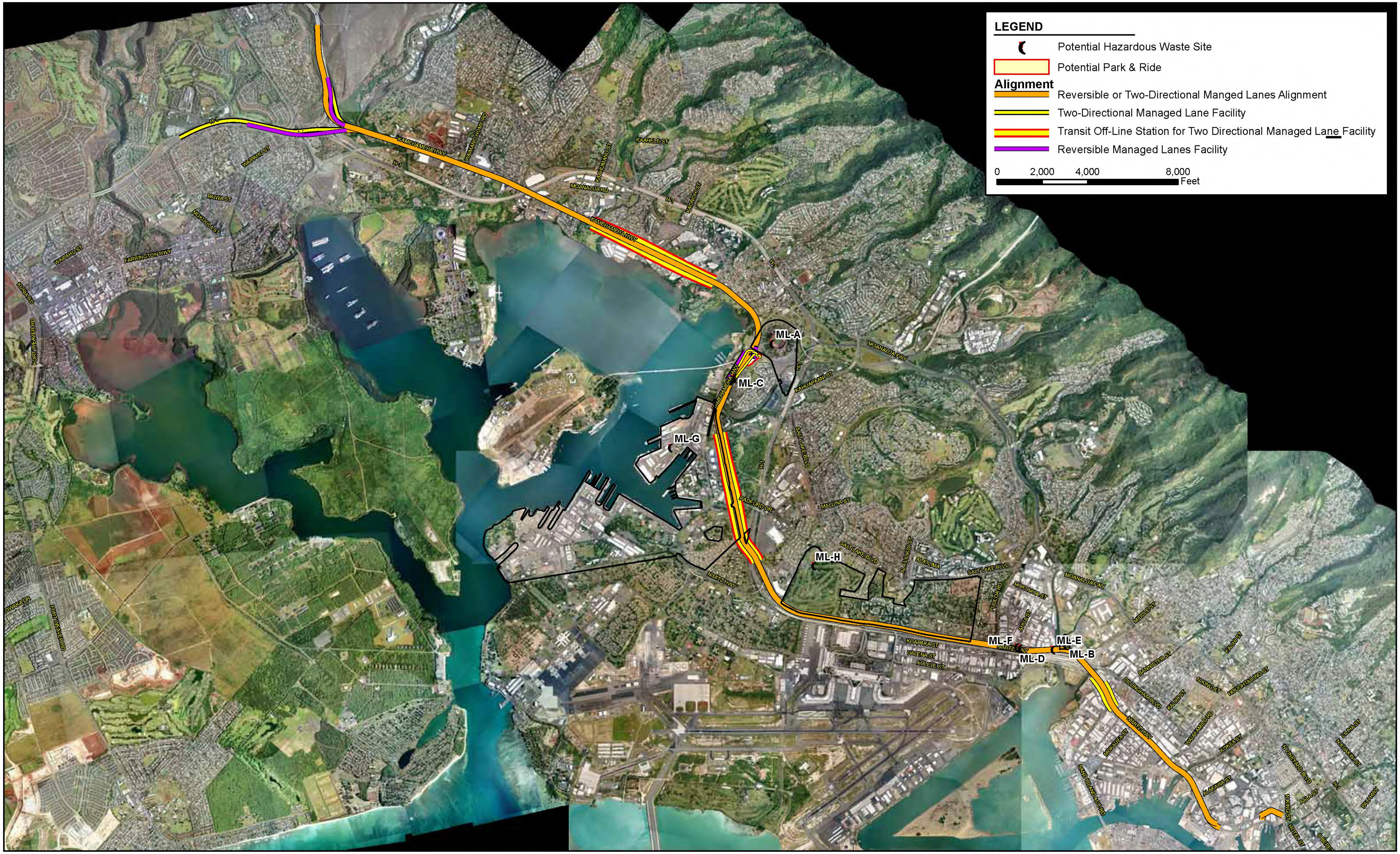
One potential hazardous waste site may be affected by the Fixed Guideway Alternative for this alignment (Figure 5-2 and Appendix A, Table A-2). The EDR database identified the hazardous waste site as Makakilo Quarry, a mine and quarry facility located at the proposed park-and-ride lot, northwest of the proposed station location at Farrington Highway/UH West O'ahu station site. The site is surrounded by residential properties and vacant land reserved for the proposed campus.

Kapolei Parkway/North-South Road

Since much of the land along this alignment is vacant, no potential hazardous waste sites that could affect construction or operation of the proposed project were identified.

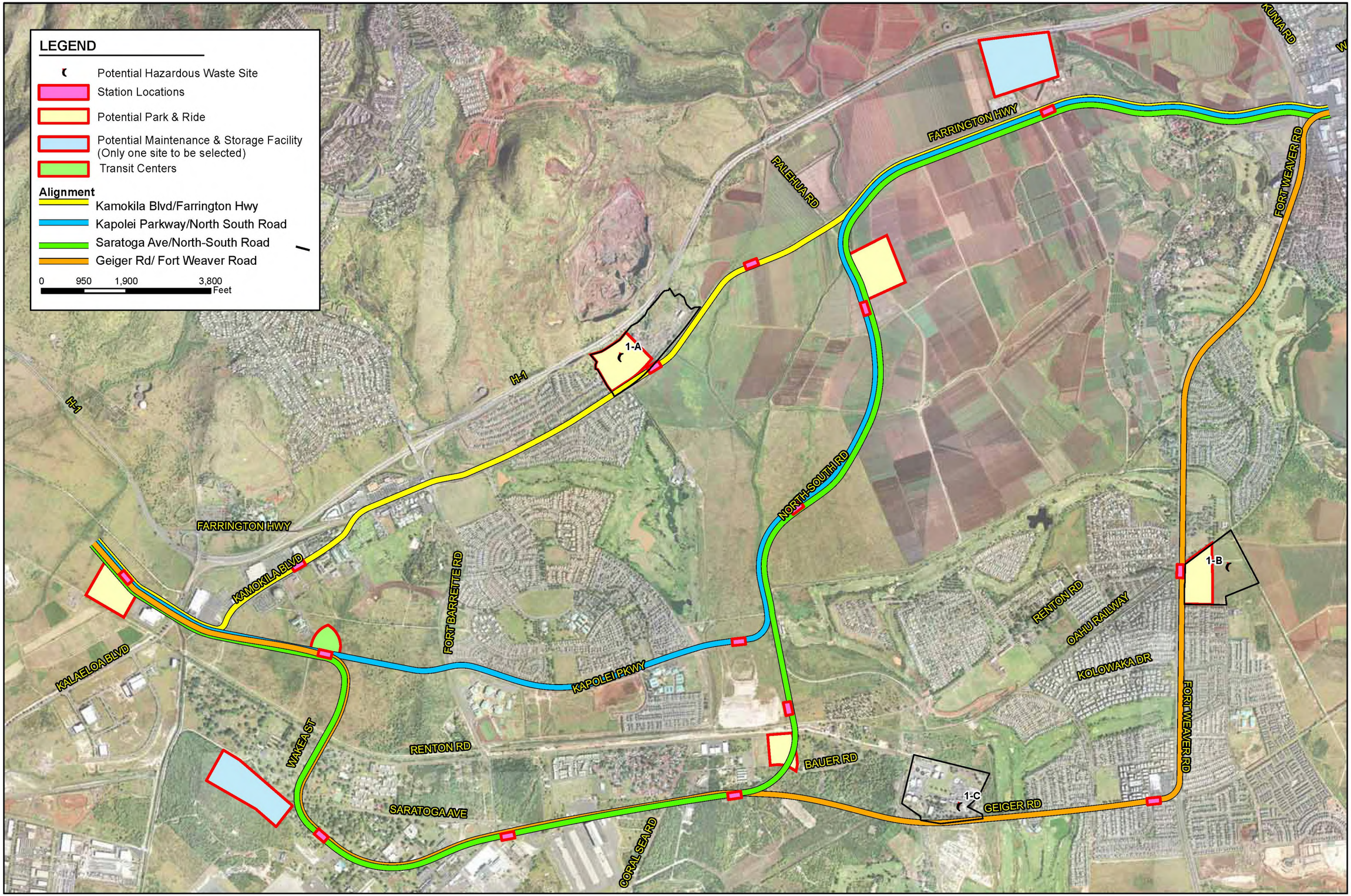
Saratoga Avenue/North-South Road

Since much of the land along this alignment is vacant, no potential hazardous waste sites that could affect construction or operation of the proposed project were identified.

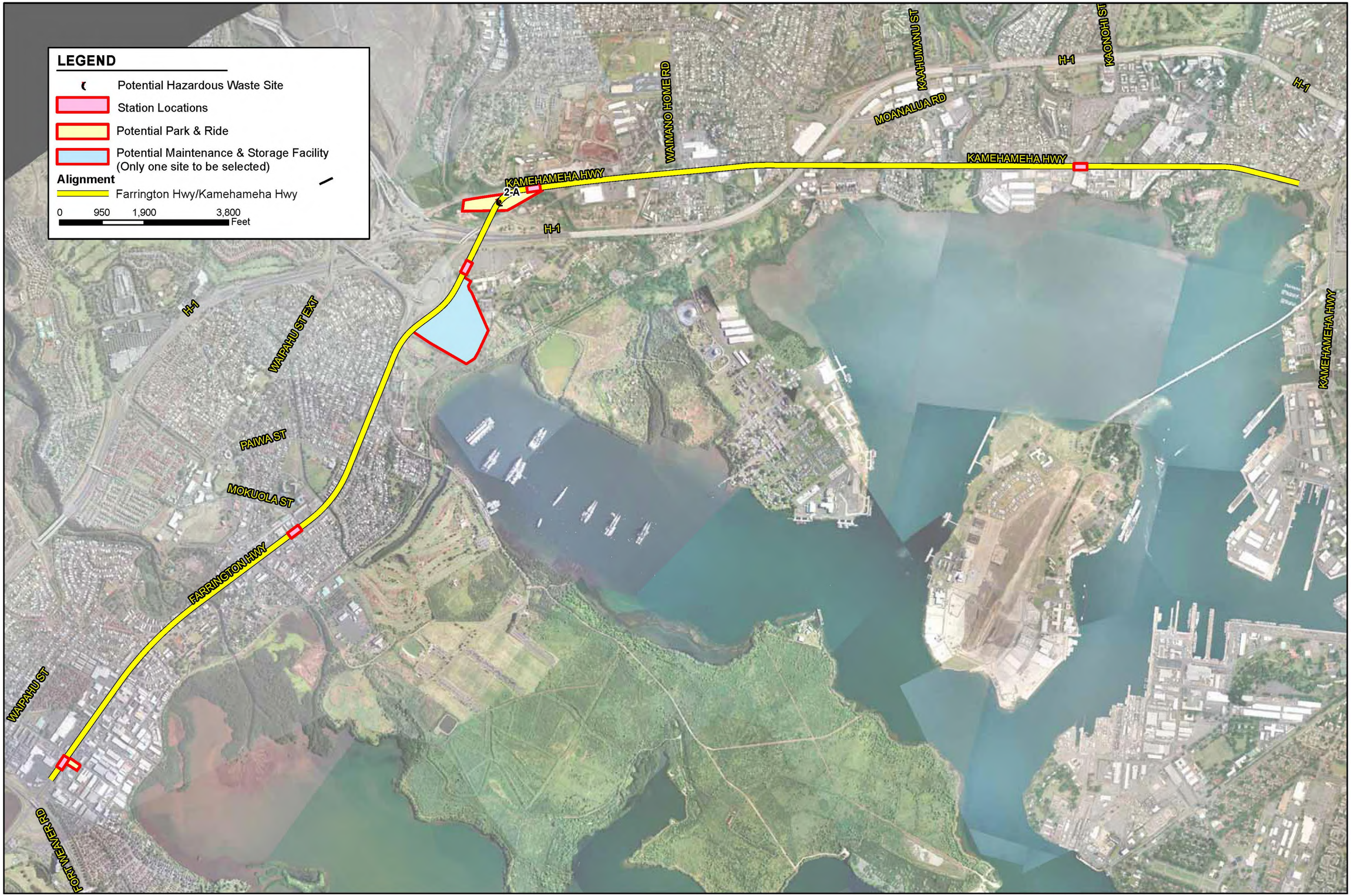


Alternative 3: Managed Lanes - Waiawa Interchange to Pacific Street
Figure 5-1 - Potential Hazardous Waste Sites

AR00065648

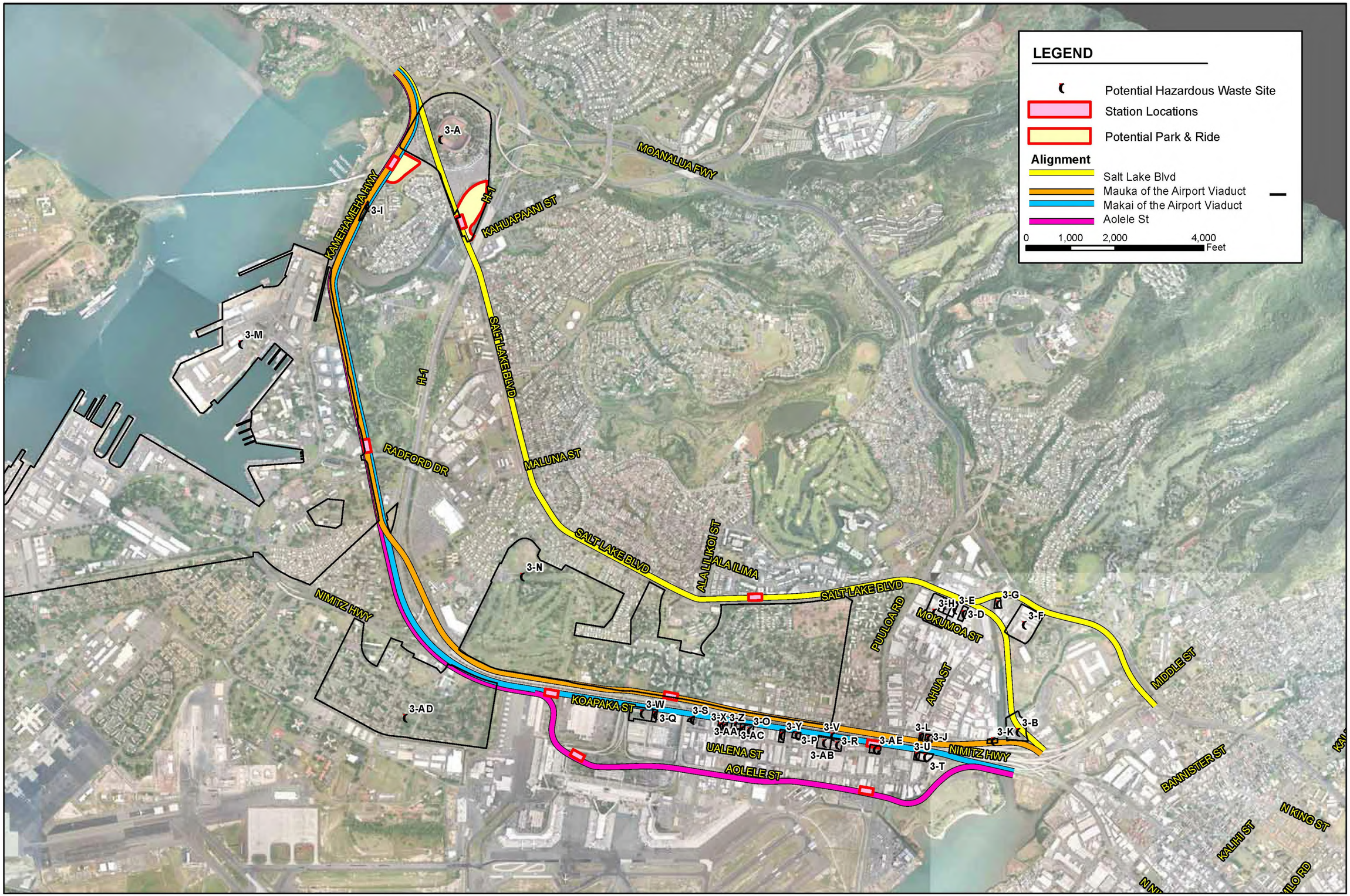


Alternative 4 Fixed Guideway: Section I - Kapolei to Fort Weaver
Figure 5-2 - Potential Hazardous Waste Sites

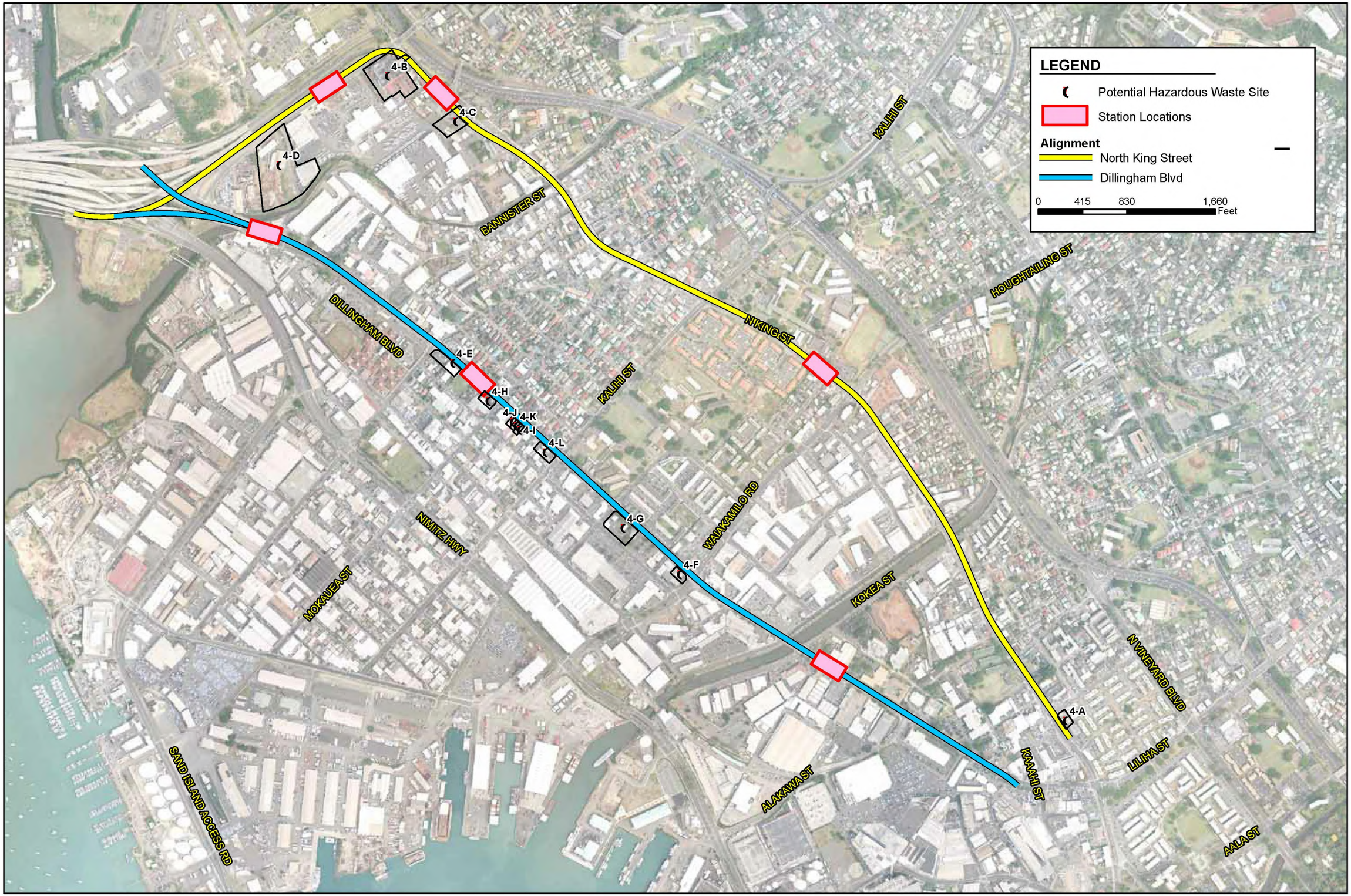


Alternative 4 Fixed Guideway: Section II - Fort Weaver Road to Aloha Stadium
Figure 5-3 - Potential Hazardous Waste Sites

AR00065650

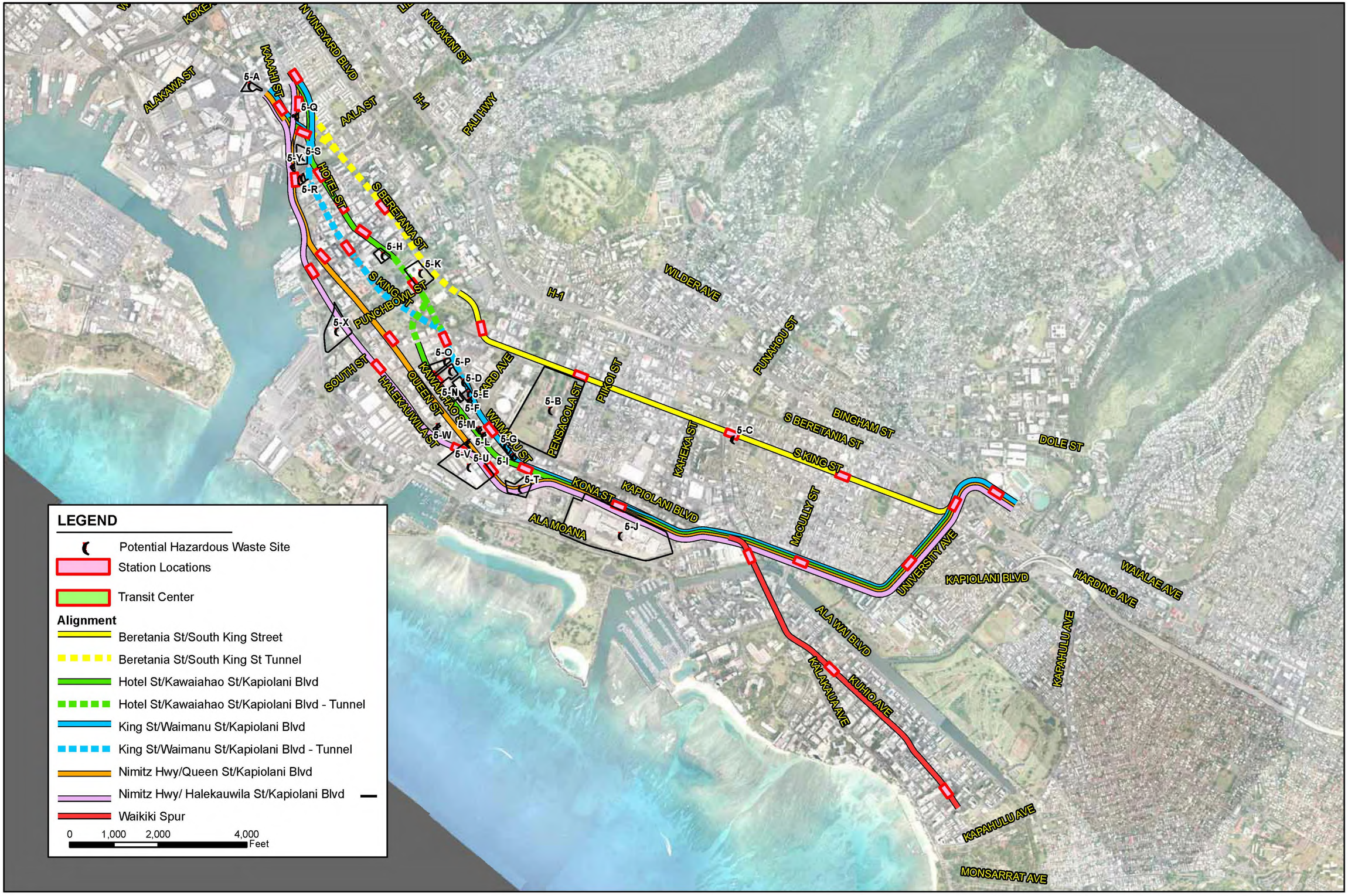


Alternative 4 Fixed Guideway: Section III - Aloha Stadium to Keehi Interchange
Figure 5-4 - Potential Hazardous Waste Sites



Alternative 4 Fixed Guideway: Section IV - Keehi Interchange to Iwilei
Figure 5-5 - Potential Hazardous Waste Sites

AR00065652



Alternative 4 Fixed Guideway: Section V - Iwilei to UH Manoa
Figure 5-6 - Potential Hazardous Waste Sites

AR00065653

Geiger Road/Fort Weaver Road

Two potential hazardous waste sites may be affected by this alignment (Figure 5-2 and Appendix A, Table A-2). Located on Geiger Road, between Roosevelt Road and east of the Coral Creek Golf Course, the Honouliuli Wastewater Treatment Plant is identified as a hazardous waste site that may be affected by the proposed alignment. A second hazardous waste site have been identified near the intersection of Fort Weaver Road and Renton Road, adjacent to a proposed park-and-ride lot and station location between the O'ahu Railway and Land Company (OR&L) tracks and Kolowaka Drive. This hazardous waste site is on vacant land and is surrounded by residential properties.

Section II: Fort Weaver Road to Aloha Stadium

This section consists of a single proposed alignment that would start near Fort Weaver Road, travel along Farrington Highway, continue along Kamehameha Highway, and end slightly before reaching Aloha Stadium.

One potential hazardous waste site is identified to be located near Waihona Street and Kamehameha Highway. The EDR database search identified the potential hazardous waste site of consisting a reported incident of a large underground storage tank that had been washed into the Wiawa Stream (Figure 5-3 and Appendix A, Table A-2).

Section III: Aloha Stadium to Middle Street

The discussion of potential hazardous waste and materials sites for the Aloha Stadium to Middle Street section is organized into the following four proposed alignments:

- Salt Lake Boulevard
- Mauka of the Airport Viaduct
- Makai of the Airport Viaduct
- Aolele Street

Salt Lake Boulevard

Eight potential hazardous waste sites may be affected by this alignment (Figure 5-4 and Appendix A, Table A-2). The EDR database search identified potential hazardous waste sites consisting of commercial, industrial, and office buildings, in which all eight contained underground storage tanks. The Salt Lake Boulevard alignment could affect Aloha Stadium, and other commercial/industrial businesses that use or house hazardous wastes or materials onsite.

Mauka of the Airport Viaduct

Eight potential hazardous waste sites could be affected by this alignment (Figure 5-4 and Appendix A, Table A-2). The EDR database search identified potential hazardous waste locations consisting of commercial and government sites, six of which contain underground storage tanks. One of the sites is a motor vehicle service facility with commercial retail of motor vehicle equipment and accessories. In addition, this alignment could affect Aloha Stadium, government naval stations, and other commercial/industrial businesses that use or house hazardous wastes or materials onsite.

Makai of the Airport Viaduct

The EDR database search identified 20 potential hazardous waste sites that could be affected by this alignment (Figure 5-4 and Appendix A, Table A-2). Potential hazardous waste sites consist of commercial, industrial, government, and office buildings. A concentration of identified hazardous waste sites is located primarily between Elliot Street and WaiWai Loop, nine of which consist of motor vehicle services and commercial retail of motor vehicle equipment and accessories. Fourteen of the 20 identified sites contain underground storage tanks. In addition, this proposed alignment could affect Aloha Stadium, the Navy Public Works Center, government naval stations, gas stations, auto repair and rental shops, and other commercial/industrial businesses that use or house hazardous wastes or materials onsite.

Aolele Street

The EDR database search identified four potential hazardous waste sites that could be affected by this alignment (Figure 5-4 and Appendix A, Table A-2). Potential hazardous waste sites consist of commercial and government facilities. Two of the four identified sites contain underground storage tanks. In addition, the Aolele Street alignment could affect Aloha Stadium, government naval stations, the Navy Public Works Center, as well as other surrounding commercial/industrial businesses that use or house hazardous wastes or materials onsite.

Section IV: Middle Street to Iwilei

The discussion of potential hazardous waste and materials sites for the Middle Street to Iwilei section is arranged according to the following two proposed alignments:

- North King Street
- Dillingham Boulevard

North King Street

Four potential hazardous waste sites could be affected by this alignment (Figure 5-5 and Appendix A, Table A-2). The EDR database search identified potential hazardous waste sites consisting of commercial and industrial properties. All four of the identified sites contain underground storage tanks. In addition, two identified sites are gas stations on the North King Street alignment.

Dillingham Boulevard

The EDR database search identified nine potential hazardous waste sites that could be affected by this alignment (Figure 5-5 and Appendix A, Table A-2). Potential hazardous waste sites consist of commercial and industrial properties. Three of the nine identified sites contain underground storage tanks. In addition, four sites consist of motor vehicle services and commercial retail of motor vehicle equipment and accessories. The Dillingham Boulevard alignment could also affect a healthcare facility, as well as other commercial and industrial businesses that use or house hazardous wastes or materials onsite.

Section V: Iwilei to UH Mānoa

The discussion of potential hazardous waste and materials sites for the Iwilei to UH Mānoa section is organized into the following six proposed alignments and the Waikīkī Spur:

- Beretania Street/South King Street
- Hotel Street/Waimanu Street/Kapi'olani Boulevard
- Hotel Street/Kawaiaha'o Street/Kapi'olani Boulevard
- King Street/Waimanu Street/ Kapi'olani Boulevard
- Nimitz Highway/Queen Street/Kapi'olani Boulevard
- Nimitz Highway/Halekauwila Street /Kapi'olani Boulevard
- Waikīkī Spur

Beretania Street/South King Street

Three potential hazardous waste sites may be affected by this alignment (Figure 5-6 and Appendix A, Table A-2). The EDR database search identified potential hazardous waste sites consisting of commercial properties, two of which contain underground storage tanks. The King Street alignment could affect an educational institution and a gas station that includes minimal auto repair services. Potential hazardous waste sites for the tunnel alignment were not identified by the EDR database search.

Hotel Street/Waimanu Street/Kapi'olani Boulevard

The EDR database search identified eight potential hazardous waste sites that could be affected by this alignment (Appendix A, Table A-2). Potential hazardous waste sites consist of commercial, industrial, government, and office buildings, of which five sites contain underground storage tanks. The tunnel alignment could affect federal office buildings, including the State Capital Building, as well as other commercial and industrial businesses that use or house hazardous wastes or materials onsite. Many of the sites are clustered between South Street and Pensacola Street.

Hotel Street/Kawaiaha'o Street/Kapi'olani Boulevard

Eight potential hazardous waste sites could be affected by this alignment (Figure 5-6 and Appendix A, Table A-2). The EDR database search identified potential hazardous waste sites consisting of residential, commercial, industrial, government, and office buildings, of which four sites contain underground storage tanks. The tunnel alignment could affect federal office buildings, including the State Capitol Building, as well as other commercial and industrial businesses that use or house hazardous wastes or materials onsite. The Kawaiaha'o Street alignment consists of many sites that are clustered between South Street and Pensacola Street.

King Street/Waimanu Street/ Kapi'olani Boulevard

Ten potential hazardous waste sites could be affected by this alignment (Figure 5-6 and Appendix A, Table A-2). The EDR database search identified potential hazardous waste sites consisting of residential, commercial, and industrial properties, of which six sites contain underground storage tanks. The Waimanu Street alignment consists of many

sites that are clustered between South Street and Pensacola Street. The tunnel alignment could affect an automobile parking structure and an apartment complex, as well as other commercial and industrial businesses that use or house hazardous wastes or materials onsite.

Nimitz Highway/Queen Street/Kapi'olani Boulevard

Four potential hazardous waste sites could be affected by this alignment (Figure 5-6 and Appendix A, Table A-2). The EDR database search identified potential hazardous waste sites consisting of residential, commercial and industrial properties, of which two sites contain underground storage tanks. The Queen Street alignment could affect an auto repair shop, as well as other commercial and industrial businesses that use or house hazardous wastes or materials onsite.

Nimitz Highway/Halekauwila Street /Kapi'olani Boulevard

Nine potential hazardous waste sites could be affected by this alignment (Figure 5-6 and Appendix A, Table A-2). The EDR database search identified potential hazardous waste sites consisting of commercial, residential, industrial, government, and office buildings, of which five sites contain underground storage tanks. The Halekauwila Street alignment could affect federal office buildings, an auto repair shop, as well as other commercial and industrial businesses that use or house hazardous wastes or materials onsite.

Waikīkī Spur

No potential hazardous waste sites that could affect construction or operation of the proposed project for the Waikīkī Spur option were identified by the EDR database search.

Secondary and Cumulative

Secondary (or indirect) impacts are defined as effects caused by the action and later in time or further removed in distance, but still reasonably foreseeable. Cumulative impacts on the environment result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.

Alternative 1: No Build

Hazardous waste and materials impacts associated with development of individual projects listed in the ORTP are not detailed in this evaluation because those projects will undergo planning and environmental review as part of their individual project development processes. The No Build Alternative for the proposed project would have no secondary or cumulative impacts on hazardous waste or materials since there would be no new construction, other than what has already been planned and approved.

Alternative 2: Transportation System Management

The TSM Alternative would not create or transport hazardous materials or wastes as part of operation of the proposed project. If new right-of-way is required for bus

enhancement facilities, hazardous waste or material sites in the project vicinity would be properly documented and, if necessary, contamination would be remediated prior to construction. Therefore, secondary and/or cumulative impacts are not expected.

Alternative 3: Managed Lane

The Managed Lane Alternative would not create or transport hazardous materials or wastes as part of operation of the proposed project. New right-of-way is required for construction of this alternative. Hazardous waste or material sites in the project vicinity would be properly documented and, if necessary, contamination would be remediated prior to construction. Therefore, secondary and/or cumulative impacts are not expected.

Alternative 4: Fixed Guideway

The Fixed Guideway Alternative would not create or transport hazardous materials or wastes as part of operation of the proposed project. New right-of-way is required for construction of this alternative. Hazardous waste or material sites in the project vicinity would be properly documented and, if necessary, contamination would be remediated prior to construction. The proposed project will result in a substantial amount of excavation or grading. If excavation materials are contaminated, proper remediation and disposal would be implemented. Therefore, secondary and/or cumulative impacts are not expected.

Chapter 6 Mitigation

The information presented in this report has several uses. Together with information developed through implementation of the following recommendations, including additional investigations conducted for this project, these data can be used to determine appropriate remediation/mitigation measures, if necessary. These data can also be used to identify and develop design specifications and to identify health, safety, and contaminant management considerations for project construction.

Potential contaminant sources have been identified that may result in adverse impacts associated with the proposed project, and additional sources may be present and undiscovered at this early stage of analysis. Some of the sites identified in this report may have active hazardous waste or materials incidences. If the improvements proposed for this project are recommended for implementation, follow-up hazardous materials analysis would be necessary prior to construction to identify impacts from the known and possibly unknown sources, and to prescribe specific mitigation to address any potential impacts. Recommended hazardous materials analyses are presented below.

Preliminary Assessment

A site reconnaissance and a review of historical land use maps and aerial photos would be conducted once a Locally Preferred Alternative (LPA) has been selected.

Site Reconnaissance

Site reconnaissance of the properties identified as part of the EDR database search is recommended to evaluate potential sources of hazardous waste and materials contamination that may adversely impact the proposed project area. In addition, any additional properties or businesses within approximately 1,000 feet north, east, west, or south of the proposed project alignments that show visual evidence of potentially using, storing, or handling hazardous materials or waste that could impact the proposed project should be recorded. The site reconnaissance would be conducted from public access areas and from within the project site, as feasible, in accordance with ASTM E-1527-00. Information would be recorded regarding the site location, the general "housekeeping" of the site, and other observed conditions that might indicate a potential environmental concern.

Review of Historical Land Use

A review of available maps and historic aerial photos would be conducted to identify any past business uses in the immediate project vicinity that could have a negative impact on the proposed project in terms of hazardous materials and wastes.

Draft EIS Phase Methodology

Once the site reconnaissance and review of historical land use have been completed, the list of potential contaminant sources gathered from these data would be narrowed based on

the type of site recorded (e.g., database listing type) and its distance from proposed project activities (see Chapter 3, EDR search distances).

Agency Records Review

If necessary, regulatory files would be reviewed at the State of Hawai'i Department of Health (HDOH) Solid and Hazardous Waste Branch (SHWB), HDOH Office of Hazard Evaluation and Emergency Response (HEER), HDOH Clean Water Branch (CWB), and the City and County of Honolulu Fire Department. These agencies' records would be searched for information about the narrowed list of potential contaminant sources to develop additional site-specific information on the selected properties. This information could include the most recent status of the site, the nature and extent of contamination, pertinent land uses, geologic and hydrogeologic conditions, and other relevant data.

Data Analysis and Documentation

Sites with potential contaminant sources as identified from the above analysis would be screened to determine their potential impact on the LPA based on the following criteria:

- The occurrence of a documented release, based on either public records or physical observation
- The physical, chemical, and toxicological characteristics of suspected contaminants released from potential sources and the potentially affected media (soil, water, and/or air)
- Distance from the project alignment
- Nature of proposed design and construction activities in relation to the site and possible impact from the potential contaminant source
- Estimated groundwater flow, direction, and depth.

These criteria would be used to eliminate potential sources that are unlikely to impact the project. Potential contaminant sources not eliminated during this screening process would be recommended for further evaluation. Potential impacts related to hazardous materials and wastes would be identified qualitatively. Mitigation measures, such as avoidance, remediation, containment, and/or other alternatives will be recommended. Qualitative statements, based on existing information, would be made regarding the possibility of contamination on sites proposed for additional right-of-way.

General Contaminant Source Recommendations

If any hazardous waste or materials site is impacted as a result of construction, whether that site is known beforehand or discovered during construction, the mitigation measures described below would be applied. A health and safety plan and construction contingency plan will be prepared for the proposed project regardless of whether any identified sites are impacted.

Documentation of Clean Up Process

In accordance with FTA regulations and guidelines, the cleanup process for handling contamination generally follows the structure developed by EPA for implementing CERCLA. Prior to construction, the following studies will be conducted for potential contaminant sources identified during the preliminary assessment, if warranted.

Site Inspection/Hazard Ranking Score (HRS): If preliminary analysis during the environmental documentation process results in a recommendation for further investigation, a Site Inspection (SI) is performed. The SI identifies sites that have a high probability of qualifying for the National Priority List, a CERCLA-mandated listing of the most serious sites identified for possible long-term remedial response. SI investigators typically collect environmental and waste samples to determine what hazardous substances are present at a site. They determine if these substances are being released into the environment and assess if they have reached nearby areas. The SI can be conducted in one stage or two. The first stage, or focused SI, tests hypotheses developed during the preliminary assessment and can yield information sufficient to prepare an HRS scoring package. If further information is necessary to document an HRS score, an expanded SI is conducted.

Listing on National Priorities List (NPL)/Remedial Investigation: After a site is listed on the NPL, a remedial investigation/feasibility study (RI/FS) is performed at the site. The RI serves as the mechanism for collecting data to characterize site conditions, determine the nature of the waste, assess risk to human health and the environment, and conduct treatability testing to evaluate the potential performance and cost of the treatment technologies that are being considered. The FS is the mechanism for the development, screening, and detailed evaluation of alternative remedial actions. The RI/FS process includes scoping, site characterization, development and screening of alternatives, treatability investigations, and detailed analysis.

Record of Decision/Remedial Action: The Record of Decision (ROD) for sites listed on the NPL is created from information generated during the RI/FS. The ROD also considers public comments and community concerns. The ROD is a public document that explains which cleanup alternative, or alternatives, will be used to clean up a listed site. The remedial design/remedial action (RD/RA) is based on the specifications described in the ROD. RD is the phase of site cleanup when the technical specifications for cleanup remedies and technologies are designed. RA involves the actual construction or implementation phase of a Superfund site cleanup following the remedial design phase.

Construction Health and Safety Plan

A health and safety plan will be developed to guide all construction activities. A certified industrial hygienist will prepare the plan based on evaluations of the proposed construction activities and the potential hazards identified in this *Hazardous Waste/Materials Technical Report* or any future assessment prepared for the proposed project. The plan will contain specific procedures for encountering both expected and unexpected contaminants. The plan will prescribe safe work practices, contaminant

monitoring, personal protective equipment, emergency response procedures, and safety training requirements for the protection of construction workers and third parties. The health and safety plan will meet the requirements of 29 CFR 1910 and 1926 and all other applicable federal, state, and local regulations and requirements.

Construction Contaminant Management Plan

A soils and groundwater contaminant management plan will be implemented during construction if contamination is suspected. The plan will include procedures for contaminant monitoring and identification, temporary storage, handling, treatment, and disposal of waste and materials in accordance with applicable federal, state, and local regulations and requirements.

Removal of Storage Tanks during Construction

Removal of aboveground and underground storage tanks, if present, may also be required. All procedures for removing tanks, including sampling procedures, must be in accordance with all applicable federal, state, and local regulations. Old abandoned tanks that are not registered could be present within the project limits. Therefore, the contractor must be prepared to encounter these types of tanks during construction, as discussed in the next mitigation measure.

Construction Contingency Plan

Before construction begins, a contingency plan will be in place to address such events as discovery of unidentified underground storage tanks, hazardous material, petroleum hydrocarbons, or hazardous or solid wastes during construction. This contingency plan will address underground storage tank decommissioning, field screening and material testing methods, mitigation and contaminant management requirements, and health and safety requirements for construction workers. If an unexpected release of hazardous substances is found in reportable quantities, the National Response Center must be notified by calling 1-800-424-8802, and cleanup must be coordinated with EPA and HDOH.

Asbestos Evaluation

All structures that would be demolished as part of construction will undergo an evaluation for the presence of asbestos-containing materials prior to demolition. The exact number and location of acquisitions will be identified during final design.

Sample collection procedures will be based upon the Asbestos Hazard Emergency Response Act (AHERA) protocols and EPA guidelines. Surveys will be conducted following modified AHERA, Occupational Safety and Health Administration (OSHA) Asbestos Construction Standard, 29 CFR 1926.1101, and applicable regulations under the federal National Emission Standard for Hazardous Air Pollutants (NESHAP). State and local regulations will be incorporated where applicable.

Samples will be collected by an EPA/AHERA and Hawai‘i Occupational Safety and Health Division (HIOSH) certified building inspector.

Standard Procedures

Standard procedures for asbestos surveys include the following:

- Initial facility walk-through
- Review of facility drawings for accuracy
- Identification of suspect asbestos-containing materials
- Collection of suspect material samples and placement into separate, sealed sample bags
- Assignment of a unique sample number
- Recordation of data on sample bag and in field notes
- Recordation of sample locations on plan drawings
- Decontamination of sampling tools after collection of each sample
- Delivery of samples to an accredited laboratory for analysis, accompanied by a completed chain of custody form.

Sample Analysis

Laboratories accredited by the National Voluntary Laboratory Accreditation Program will analyze samples. The samples will be analyzed using the following methods:

- EPA Interim Method for the Detection of Asbestos in Bulk Insulation Samples EPA 600/M4-82020 (December 1982)
- McCrone Research Institute's *The Asbestos Particle Atlas*
- Polarized Light Microscopy (PLM) visual area estimation (VAE)
- Materials containing greater than non-detect and less than 10 percent asbestos by PLM-VAE may be reanalyzed by PLM point counting.

Additional treatment and tests may be used as required to accurately define the composition (i.e., washing, extractions, and transmission electron microscopy). Classifications and determination of asbestos-containing material will be based upon all current regulatory information, including NESHAP clarifications and multi-layered systems as published in the *Federal Register*.

Lead Evaluation

Structures that would be demolished as part of construction will also undergo an evaluation for the presence of lead-based paint (LBP) prior to demolition. RCRA 40 CFR 261 requires the generator of construction demolition waste to characterize the wastes to determine if they are "hazardous wastes" with special disposal requirements. Lead is recognized by RCRA as having potential toxicity characteristics identifying it as a hazardous waste. Because of the use of lead in paint, there is a potential for construction demolition wastes to exceed maximum concentrations of lead and to be identified as hazardous waste. LBP is identified by EPA as paint that contains more than 0.5 percent lead by dry weight. In addition, implementation of improvements could require the removal and disposal of yellow traffic stripe and years of pavement marking materials that may contain lead (paint, thermoplastic, permanent tape, and temporary tape

more than three years old). Testing and removal requirements for yellow striping will follow pertinent state and local regulations.

Solid Waste Management Plan

A solid waste management plan will be implemented during construction and will encompass all project phases, including grading and demolition activities, construction activities, and occupation and operation of the completed project. The plan will include procedures for recycling of green waste during clearing and grubbing activities; maximizing the recycling of construction and demolition wastes, if appropriate; use of locally produced compost in landscaping; use of recycled content in building or construction materials; and provision of recycling facilities in the design of the project.

The contractor shall ensure that all solid waste generated during construction is directed to a HDOH-permitted solid waste disposal or recycling facility. The contractor shall consider providing space at transit boarding and unloading stations for recycling. The provision of space for recycling bins for paper, glass, and food/wet waste would encourage recycling of solid waste generated by transit users. Furthermore, Hawai‘i Revised Statutes Chapter 103D-407 stipulates that all highway and road construction/improvement projects funded by the State or county or roadways that are to be accepted by the State or county as public roads shall use a minimum of 10 percent crushed glass aggregate as specified by the Hawai‘i Department of Transportation in all base-course (treated or untreated) and sub-base when the glass is available to the quarry or contractor at a price no greater than that of the equivalent aggregate.

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Appendix A Potential Hazardous Waste Sites

Table A-1 EDR Database-Identified Hazardous Waste Sites for Managed Lane Alternative					
Alternative	**Site Name**	**Site Address**	**EDR ID**	**Database(s)[1]**	**Map ID[2]**
3a. Two-Direction Option					
Waiawa IC to Hālawa Stream	Aloha Stadium	99-500 Salt Lake Blvd Honolulu, HI	1004464918, U003832860	FINDS, FTTS, UST	ML-A
	N/A	Kamehameha Hwy / Kohomua St Honolulu, HI	S107024714	SPILLS	ML-C
Hālawa Stream to Pacific Street	Ke'ehi Transfer Station	606 Middle Street Honolulu, HI	1000241322	SPILLS, LUST, UST, RCRIS-SQG, FINDS	ML-B
	Rite Way Auto Detailing	609 Ahua St Honolulu, HI	U001235124	UST, FINDS	ML-D
	Oceanic Cablevision	2669 Kilihau St Honolulu, HI	1006819035	SPILLS, SHWS, FINDS, ERNS	ML-E
	O'ahu Tire Service & Co.	2808 Kamehameha Hwy Honolulu, HI	U001235236	LUST, UST	ML-F
	Fleet Accounting & Disbursing	Bldg 499/199 Tank 44 Hale Moku Pearl Harbor, HI	U001235314	LUST, UST	ML-G
	Fleet and Industrial Supply Center	Building 480 Tank Y – Dock/480 Pearl Harbor	U003154824	LUST, UST	ML-G
	Kuahua Peninsula	P.O. Box 300/Bldg 444 Tank 10 Pearl Harbor, HI	S103872739	LUST	ML-G
	Fleet and Industrial Supply Center	Building 487 Pearl Harbor, HI	S103872749	LUST	ML-G

Table A-1 (Continued)
EDR Database-Identified Hazardous Waste Sites for Managed Lane Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Hālawa Stream to Pacific Street (Continued)	Kuahua Peninsula	P.O. Box 300/Bldg 488 Tank 12 &13 Pearl Harbor, HI	U001235823	LUST, UST	ML-G
	Navy Public Works Center	Building 1326, Tank 24, 25, 26 & 27 Pearl Harbor, HI	U001235860	LUST, UST	ML-G
	Navy PWC – Makalapa Compound	Redford Dr & Bouganville St Pearl Harbor, HI	1000363843	CERCLIS, RCRIS-LQG, RCRIS-TSD	ML-G
	Naval Station-Pearl Harbor	Navy Marine Golf Course, Tank 92 Pearl Harbor, HI	U003221879	LUST, UST	ML-H
3b. Reversible Option					
Waiawa IC to Hālawa Stream	Aloha Stadium	99-500 Salt Lake Blvd Honolulu, HI	1004464918, U003832860	FINDS, FTTS, UST	ML-A
	N/A	Kamehameha Hwy / Kohomua St Honolulu, HI	S107024714	SPILLS	ML-C
Hālawa Stream to Pacific Street	Keʻehi Transfer Station	606 Middle Street Honolulu, HI	1000241322	SPILLS, LUST, UST, RCRIS-SQG, FINDS	ML-B
	Rite Way Auto Detailing	609 Ahua St Honolulu, HI	U001235124	UST, FINDS	ML-D
	Oceanic Cablevision	2669 Kilihau St Honolulu, HI	1006819035	SPILLS, SHWS, FINDS, ERNS	ML-E
	Oʻahu Tire Service & Co.	2808 Kamehameha Hwy Honolulu, HI	U001235236	LUST, UST	ML-F

Table A-1 (Continued) EDR Database-Identified Hazardous Waste Sites for Managed Lane Alternative					
Alternative	**Site Name**	**Site Address**	**EDR ID**	**Database(s)[1]**	**Map ID[2]**
Hālawa Stream to Pacific Street (Continued)	Naval Station-Pearl Harbor	Navy Marine Golf Course, Tank 92 Pearl Harbor, HI	U003221879	LUST, UST	ML-H

Source: Environmental Data Resources, Inc., February 22, 2006

Note: 1: CERCLIS = Comprehensive Environmental Response, Compensation and Liability System; ERNS = Emergency Response Notification System; FINDS = Facility Index System; FITS = Federal Insecticide, Fungicide, and Rodenticide Act/Toxic Substances Control Act (FIFRA/TSCA), also known as FTTS; LUST = Leaking Underground Storage Tank; RCRIS-LQG = Resource Conservation and Recovery Information System – Large Quantity Generators; RCRIS-SQG =Resource Conservation and Recovery Information System – Small Quantity Generators; RCRIS-TSD = Resource Conservation and Recovery Information System – Transport, Store, Dispose; SHWS = Sites List; SPILLS = Release Notifications; UST = Underground Storage Tank

2: Map ID corresponds to sites identified in Figure 5-1 – Potential Hazardous Waste Sites

Table A-2
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
I. Kapolei to Fort Weaver Road					
Kamokila Boulevard to Farrington Highway	Makakilo Quarry	91-920 Farrington Hwy Wai'anae, HI	U003221962	LUST, UST, FINDS, SPILLS, ERNS, RCRIS-SQG	1-A
Geiger Road to Fort Weaver Road	N/A	Fort Weaver Rd & Renton Rd 'Ewa, HI	S107023613	SPILLS	1-B
	Honouliuli Wastewater Treatment	91-1000 Geiger Rd 'Ewa, HI	S105481818	LUST, UST, FINDS	1-C
II. Fort Weaver Road to Aloha Stadium					
Farrington Highway – Kamehameha Highway	Wiawa Stream, located under the bridge of Kamehameha Hwy	Kamehameha Hwy/Waihona Pearl City, HI	S107023420	SPILLS	2-A
III. Aloha Stadium to Middle Street					
Salt Lake Boulevard	Aloha Stadium	99-500 Salt Lake Blvd Honolulu, HI	1004464918, U003832860	FINDS, FTTS, UST	3-A
	Ke'ehi Transfer Station	606 Middle Street Honolulu, HI	1000241322	SPILLS, LUST, UST, RCRIS-SQG, FINDS	3-B
	All Star SAB	2865 Pukoloa Street Honolulu, HI	1000601469	RCRIS-SQG, FINDS, UST, LUST, FINDS	3-C
	Pukoloa Wood Treating Site	2819 Pukoloa Street Honolulu, HI	1006819810	SHWS, FINDS	3-D
	Toyota City Used Car Corral	2819 Pukoloa Street Honolulu, HI	U003154517	UST, FINDS	3-D
	Pukoloa Wood Treating Site	2841 Pukoloa Street Honolulu, HI	1001126529	CERCLIS	3-E

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Salt Lake Boulevard (Continued)	Servco Pacific Inc	2841 Pukoloa Street Honolulu, HI	1000342906	RCRIS-LQG, FINDS	3-E
	Toyota Parts & Service Center	2841 Pukoloa Street Honolulu, HI	U003541747	UST, FINDS, LUST	3-E
	Moanalua Baseyard	1021 Kikowaena Pl Honolulu, HI	U001235196	LUST, UST, FINDS	3-F
	O'ahu Amusement & Vending Inc.	1062 Kikowaena Pl Honolulu, HI	U001235467	LUST, UST, FINDS	3-G
	Coca-Cola Bottling Co. of Honolulu	949 Mapunapuna Street Honolulu, HI	U001235239	SPILLS, SHWS, LUST, UST, RCRIS-SQG, FINDS, ERNS	3-H
Mauka of the Airport Viaduct	Aloha Stadium	99-500 Salt Lake Blvd Honolulu, HI	1004464918, U003832860	FINDS, FTTS, UST	3-A
	Ke'ehi Transfer Station	606 Middle Street Honolulu, HI	1000241322	SPILLS, LUST, UST, RCRIS-SQG, FINDS	3-B
	N/A	Kamehameha Hwy / Kohomua St Honolulu, HI	S107024714	SPILLS	3-I
	Rite Way Auto Detailing	609 Ahua St Honolulu, HI	U001235124	UST, FINDS	3-J
	Oceanic Cablevision	2669 Kilihau St Honolulu, HI	1006819035	SPILLS, SHWS, FINDS, ERNS	3-K
	O'ahu Tire Service & Co.	2808 Kamehameha Hwy Honolulu, HI	U001235236	LUST, UST	3-L

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Mauka of the Airport Viaduct (Continued)	Fleet Accounting & Disbursing	Bldg 499/199 Tank 44 Hale Moku Pearl Harbor, HI	U001235314	LUST, UST	3-M
	Fleet and Industrial Supply Center	Building 480 Tank Y – Dock/480 Pearl Harbor	U003154824	LUST, UST	3-M
	Kuahua Peninsula	P.O. Box 300/Bldg 444 Tank 10 Pearl Harbor, HI	S103872739	LUST	3-M
	Fleet and Industrial Supply Center	Building 487 Pearl Harbor, HI	S103872749	LUST	3-M
	Kuahua Peninsula	P.O. Box 300/Bldg 488 Tank 12 &13 Pearl Harbor, HI	U001235823	LUST, UST	3-M
	Navy Public Works Center	Building 1326, Tank 24, 25, 26 & 27 Pearl Harbor, HI	U001235860	LUST, UST	3-M
	Navy PWC – Makalapa Compound	Redford Dr & Bouganville St Pearl Harbor, HI	1000363843	CERCLIS, RCRIS-LQG, RCRIS-TSD	3-M
	Naval Station-Pearl Harbor	Navy Marine Golf Course, Tank 92 Pearl Harbor, HI	U003221879	LUST, UST	3-N
Makai of the Airport Viaduct	Aloha Stadium	99-500 Salt Lake Blvd Honolulu, HI	1004464918, U003832860	FINDS, FTTS, UST	3-A
	N/A	Kamehameha Hwy / Kohomua St Honolulu, HI	S107024714	SPILLS	3-I

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Makai of the Airport Viaduct (Continued)	Fleet Accounting & Disbursing	Bldg 499/199 Tank 44 Hale Moku Pearl Harbor, HI	U001235314	LUST, UST	3-M
	Fleet and Industrial Supply Center	Building 480 Tank Y – Dock/480 Pearl Harbor	U003154824	LUST, UST	3-M
	Kuahua Peninsula	P.O. Box 300/Bldg 444 Tank 10 Pearl Harbor, HI	S103872739	LUST	3-M
	Fleet and Industrial Supply Center	Building 487 Pearl Harbor, HI	S103872749	LUST	3-M
	Kuahua Peninsula	P.O. Box 300/Bldg 488 Tank 12 &13 Pearl Harbor, HI	U001235823	LUST, UST	3-M
	Navy Public Works Center	Building 1326, Tank 24, 25, 26 & 27 Pearl Harbor, HI	U001235860	LUST, UST	3-M
	Navy PWC – Makalapa Compound	Redford Dr & Bouganville St Pearl Harbor, HI	1000363843	CERCLIS, RCRIS-LQG, RCRIS-TSD	3-M
	Cutter Dodge Inc	3149 N Nimitz Hwy Honolulu, HI	1000401590	RCRIS-SQG, FINDS	3-O
	Airport Used Car Rental Inc.	3033 N Nimitz Hwy Honolulu, HI	U001235674	UST, FINDS	3-P
	Allstate Industrial and Marine Cleaning	3365 N Nimitz Hwy Honolulu, HI	1000860449	RCRIS-SQG, FINDS	3-Q

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Makai of the Airport Viaduct (Continued)	Mike Salta Pontiac	2945 N Nimitz Hwy Honolulu, HI	1000198507	UST, RCRIS-SQG, FINDS	3-R
	Nimitz Chevron Service #97970	3299 N Nimitz Hwy Honolulu, HI	1006819086	FINDS, LUST, UST, RCRIS-SQG	3-S
	Ogden Allied Services	2720 Waiwai LP Honolulu, HI	1006843045	FINDS, LUST, UST	3-T
	Peacock Roofing and Termite Co, LTD	2726 Waiwai LP Honolulu, HI	U003346379	UST, LUST, RCRIS-SQG, FINDS	3-U
	Saturn of Honolulu	2901 N Nimitz Hwy Honolulu, HI	U003154462	LUST, UST, RCRIS-SQG, FINDS	3-V
	Honolulu Airport Hotel	3401 N Nimitz Hwy Māpunapuna, HI	S106817780	SPILLS	3-W
	National Car Rental System, Inc./North Nimitz High	3223 N Nimitz hwy Honolulu, HI	S106819223	SHWS, UST, FINDS	3-X
	Alamo Rent-A-Car, Inc.	3055 N Nimitz Hwy Honolulu, HI	U001235564	SPILLS, LUST, UST, FINDS	3-Y
	Philip & Dolly Won	3207 N Nimitz Hwy Honolulu, HI	U001235621	UST, FINDS	3-Z
	Sheridan Ing Partners Hawai‘i	3165 N Nimitz Hwy Honolulu, HI	U001235622	UST, FINDS	3-AA
	Cycle City	2965 N Nimitz Hwy Honolulu, HI	U001235627	UST, FINDS	3-AB
	Texaco Station (former)	3179 N Nimitz Hwy Honolulu, HI	U001235166	UST, FINDS	3-AC

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Makai of the Airport Viaduct (Continued)	Hickam Air Force Base	351 Elliott St Honolulu, HI	CUSA047694	DOD	3-AD
	South Seas Motors	2841 N Nimitz Hwy Honolulu, HI	1000406755	RCRIS-SQG, FINDS	3-AE
Aolele Street	Aloha Stadium	99-500 Salt Lake Blvd Honolulu, HI	1004464918, U003832860	FINDS, FTTS, UST	3-A
	N/A	Kamehameha Hwy/Kohomua St Honolulu, HI	S107024714	SPILLS	3-I
	Fleet Accounting & Disbursing	Bldg 499/199 Tank 44 Hale Moku Pearl Harbor, HI	U001235314	LUST, UST	3-M
	Fleet and Industrial Supply Center	Building 480 Tank Y – Dock/480 Pearl Harbor	U003154824	LUST, UST	3-M
	Kuahua Peninsula	P.O. Box 300/Bldg 444 Tank 10 Pearl Harbor, HI	S103872739	LUST	3-M
	Fleet and Industrial Supply Center	Building 487 Pearl Harbor, HI	S103872749	LUST	3-M
	Kuahua Peninsula	P.O. Box 300/Bldg 488 Tank 12 &13 Pearl Harbor, HI	U001235823	LUST, UST	3-M
	Navy Public Works Center	Building 1326, Tank 24, 25, 26 & 27 Pearl Harbor, HI	U001235860	LUST, UST	3-M

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Aolele Street (Continued)	Navy PWC – Makalapa Compound	Redford Dr & Bouganville St Pearl Harbor, HI	1000363843	CERCLIS, RCRIS-LQG, RCRIS-TSD	3-M
	Hickam Air Force Base	351 Elliott St Honolulu, HI	CUSA047694	DOD	3-AD
IV. Middle Street to Iwilei					
North King Street	Shell Service Station (N King Shell)	666 N King St Honolulu, HI	S106820420	SPILLS, LUST, UST, FINDS,	4-A
	Loves Bakery	911 Middle St Honolulu, HI	U001235304	UST, FTTS, FINDS	4-B
	KSC Service L-4210	2295 N King St Honolulu, HI	U001235008	LUST, UST	4-C
	Unocal 76 SS L 4210	2295 N King St Honolulu, HI	1004688903	RCRIS-SQG, FINDS	4-C
	Yee Hop Property	621 Middle St Honolulu, HI	1006819624	SPILLS, SHWS, FINDS, LUST, UST	4-D
Dillingham Boulevard	Yee Hop Property - i	621 Middle St Honolulu, HI	1006819624	SPILLS, SHWS, FINDS, LUST, UST	4-D
	Blood Bank of Hawaii - h	2043 Dillingham Blvd Honolulu, HI	S106084480	HAZNET, MLTS	4-E
	Midas -a	1415 Dillingham Blvd Honolulu, HI	1000156631	RCRIS-SQG, FINDS	4-F
	Payless Drug	1505 Dillingham Blvd Honolulu, HI	1000906786	RCRIS-SQG, FINDS	4-G

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Dillingham Boulevard (Continued)	Dillingham Shopping Plaza Community Recylcing Center - c	1505 Dillingham Blvd Honolulu, HI	1006874176	FINDS	4-G
	Ken T Service - a	1901 Dillingham Blvd, Honolulu, HI	S103872741	LUST, FINDS, UST, RCRIS-SQG	4-H
	Island Recycling Inc - c	1811 Dillingham Blvd Honolulu, HI	1005443253	RCRIS-SQG, FINDS	4-I
	Edades Sausage Factory -c	1819 Dillingham Blvd Honolulu, HI	S105263385	SPILLS	4-J
	Fantastik Auto Repair Shop Inc a	1815 Dillingham Blvd Honolulu, HI	S105264803	SPILLS	4-K
	IMM – Dillingham -a	1701 Dillingham Blvd Honolulu, HI	S103872756	LUST, UST	4-L
	Arco AM/PM #82101 (Texaco 61-100-0035)	1701 Dillingham Blvd Honolulu, HI	1006820502	FINDS	4-L
V. Iwilei to UH Mānoa					
Beretania Street – South King Street	Cutter Dodge Auto Service Center	735 Dillingham Blvd Honolulu, HI	U001235565, 1000334051, S106816819	LUST, UST, RCRIS-SQG, FINDS, SPILLS, SHWS	5-A
	Kapiolani	1039 S King St Honolulu, HI	S106401374	LF	5-B
	Tesoro Gas Express #18	1549 S King St Honolulu, HI	S103455185	LUST, UST, FINDS	5-C

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Hotel Street – Waimanu Street – Kapiolani Bouelvard	BMW Of Honolulu	777 Kapiolani Blvd Honolulu, HI	S106816569	INST CONTROL, SPILLS, SHWS, FINDS, LUST, UST,	5-D
	Kapiolani & Chapin	Kapiolani Blvd & Chapin St Honolulu, HI	S102688194	LUST	5-D
	Former Hotel-Young Laundry	825 Kapiolani Blvd Honolulu, HI	S103455090	LUST, INST CONTROL, SPILLS, SHWS, FINDS, VCP, UST	5-E
	Standard Plumbing, INC	894 Waimanu St Honolulu, HI	U001235464	UST, FINDS	5-F
	HDC Properties, Stained Soils	1015 Kapoplani Blvd. Honolulu, HI	1006821118	INST CONTROL, SPILLS, SHWS, FINDS	5-G
	Pearl Harbor Naval Shipyard	1099 Alakea St, 12th Fl Pearl Harbor, HI	1008171610	FINDS	5-H
	Alii Place	1099 Alakea St Honolulu, HI	1006843375	FINDS, UST	5-H
	San Auto Body And Painting	1058 Waimanu St Honolulu, HI	U003711758	UST, FINDS, LUST	5-I
	Sears Roebuck & Company # 1158	1450 Ala Monana Blvd #1000 Honolulu, HI	U001235603	SPILLS, LUST,UST, RCRIS-SQG, FINDS	5-J
	DAGS CSD State Capital Bldg	415 S Beretania St Honolulu, HI	1004688984	RCRIS-SQG, FINDS	5-K
Hotel Street – Kawaiahao Street – Kapiolani Boulevard	Alii Place	1099 Alakea St Honolulu, HI	1006843375	FINDS, UST	5-H
	Pearl Harbor Naval Shipyard	1099 Alakea St 12th Fl Pearl Harbor, HI	1008171610	FINDS	5-H

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Hotel Street – Kawaiahao Street – Kapiolani Boulevard (Continued)	Seras Roebuck & Company # 1158	1450 Ala Moana Blvd. #1000 Honolulu, HI	U001235603	SPILLS, LUST, UST, RCRIS-SQG, FINDS	5-J
	DAGS CSD State Capital Bldg	415 S Beretania St Honolulu, HI	1004688984	RCRIS-SQG, FINDS	5-K
	Transmission Service of Hawaii	972 Kawaiahao St. Honolulu, HI	100320249	RCRIS-SQG FINDS	5-L
	Victoria Ward LTD	956 Kawaiahao St. Honolulu, HI	U003154709	UST, FINDS	5-M
	ABL Computers Tech. INC	875 Waimanu St. Honolulu, HI	1000108401	RCRIS-SQG, FINDS	5-N
	Honolulu, City & County Of	711 Kapiolani Bl Honolulu, HI	1007134289	FINDS	5-O
	HD&C	725 Kapolani Blvd Honolulu, HI	S106817426	SPILLS, SHWS, FINDS	5-P
	Imperial Plaza	725 Kapiolani Blvd Honolulu, HI	U001235761	LUST, UST, FINDS	5-P
King Street – Waimanu Street – Kapiolani Boulevard	Cutter Dodge Auto Service Center	735 Dillingham Blvd Honolulu, HI	U001235565, 1000334051, S106816819	LUST, UST, RCRIS-SQG, FINDS, SPILLS, SHWS	5-A
	BMW Of Honolulu	777 Kapiolani Blvd Honolulu, HI	S106816569	INST CONTROL, SPILLS, SHWS, FINDS, LUST, UST,	5-D
	Kapiolani & Chapin	Kapiolani Blvd & Chapin St Honolulu, HI	S102688194	LUST	5-D

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
King Street – Waimanu Street – Kapiolani Boulevard (Continued)	Former Hotel-Young Laundry	825 Kapiolani Blvd Honolulu, HI	S103455090	LUST, INST CONTROL, SPILLS, SHWS, FINDS, VCP, UST	5-E
	Standard Plumbing, INC	894 Waimanu St Honolulu, HI	U001235464	UST, FINDS	5-F
	HDC Properties, Stained Soils	1015 Kapoplani Blvd. Honolulu, HI	1006821118	INST CONTROL, SPILLS, SHWS, FINDS	5-G
	San Auto Body And Painting	1058 Waimanu St Honolulu, HI	U003711758	UST, FINDS, LUST	5-I
	Sears Roebuck & Company # 1158	1450 Ala Monana Blvd #1000 Honolulu, HI	U001235603	SPILLS, LUST,UST, RCRIS-SQG, FINDS	5-J
	Aloha Fender Inc	915 Ka‘aahi Pl Honolulu, HI	1000823317	RCRIS-SQG, FINDS	5-Q
	901 River St	901 River St Honolulu, HI	S106815774	SPILLS	5-R
	HECO Fuel Spill	Nimitz Hwy & River St Honolulu, HI	1006821116; S107023350	FINDS, SPILLS	5-R
	215 North King Street Construction Site, Tank 1	215 N King St Honolulu, HI	S106815334	SHWS	5-S
Nimitz Highway – Queen Street – Kapiolani Boulevard	Sears Roebuck & Company # 1158	1450 Ala Monana Blvd #1000 Honolulu, HI	U001235603	SPILLS, LUST,UST, RCRIS-SQG, FINDS	5-J
	Aloha Fender Inc	915 Ka‘aahi Pl Honolulu, HI	1000823317	RCRIS-SQG, FINDS	5-Q
	Koolani Tower Project	1189 Waimanu St Honolulu, HI	S106818609	SPILLS, SHWS	5-T

Table A-2 (Continued)
EDR Database-Identified Hazardous Waste Sites for Fixed Guideway Alternative

Alternative	Site Name	Site Address	EDR ID	Database(s)[1]	Map ID[2]
Nimitz Highway – Queen Street – Kapiolani Boulevard	Market Center Service Station	1020 Auahi St Honolulu, HI	U001235504	SPILLS, LUST, UST, FINDS	5-U
Nimitz Highway – Halekauwila Street – Kapiolani Boulevard	Sears Roebuck & Company # 1158	1450 Ala Monana Blvd #1000 Honolulu, HI	U001235603	SPILLS, LUST,UST, RCRIS-SQG, FINDS	5-J
	Aloha Fender Inc	915 Ka'aahi Pl Honolulu, HI	1000823317	RCRIS-SQG, FINDS	5-Q
	215 North King Street Construction Site, Tank 1	215 N King St Honolulu, HI	S106815334	SHWS	5-S
	Koolani Tower Project	1189 Waimanu St Honolulu, HI	S106818609	SPILLS, SHWS	5-T
	Market Center Service Station	1020 Auahi St Honolulu, HI	U001235504	SPILLS, LUST, UST, FINDS	5-U
	Ray's Auto Service	959 Queen St Honolulu, HI	U001235980	LUST, UST, FINDS	5-V
	A Complete Silk Screen Shop	860 Halekauwila St Honolulu, HI	U001235541	UST, FINDS,	5-W
	KURE ATOLL, U.S. Coast Guard	300 Ala Moana Blvd, Suite 8122 Honolulu, HI	1000816949	CERCLIS, FINDS, SPILLS	5-X
	Awa Street Wastewater Pump Station	190 Nimitz Hwy Honolulu, HI	U003762120	UST, FINDS, SPILLS,	5-Y

Source: Environmental Data Resources, Inc., February 22, 2006

Note: 1: CERCLIS = Comprehensive Environmental Response, Compensation, and Liability Information System; DOD = Department of Defense sites; ERNS = Emergency Response Notification System; FINDS = Facility Index System/Facility Identification Initiative Program Summary Report; FITS = Federal Insecticide, Fungicide, and Rodenticide Act/Toxic Substances Control Act (FIFRA/TSCA), also known as FTTS; HAZNET = Facility and Manifest Data; INST CONTROL = Sites with Institutional Controls; LF = Landfill Sites; LUST = Leaking Underground Storage Tank; MLTS = Material Licensing Tracking System; RCRIS-LQG = Resource Conservation and Recovery Information System - Large-Quantity Generator; RCRIS-SQG = Resource Conservation and Recovery Information System - Small-Quantity Generator; SHWS = Sites List; RCRIS-TSD = Resource Conservation and Recover Information System-Transport, Store, Dispose; SPILLS = Release Notifications; UST = Underground Storage Tank; VCP = Voluntary Response Program Sites

2: Map ID corresponds to sites identified in Figure 5-2 through 5-6 – Potential Hazardous Waste Sites.